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Examination and film documentation of the New Western Energy Show 1976-77

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AN EXAMINATION AND FILM DOCUMENTATION OF THE NEW WESTERN ENERGY SHOW 1976-77

by

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The New Western Energy Show was created in early 1976 by members of the Alternative Energy Resources Organization of Billings, Montana. AERO is a nonprofit citizens' organization founded in 1974 to present information about energy conservation and renewable energy resources. In the past, AERO's activities have included: publication of a newsletter, the AERO Sun-Times, conducting workshops in which various aspects of renewable resources were demonstrated and discussed, maintaining a library of literature on renewable energy and related subjects, and providing speakers and media presentations to interested groups.

The originators of the NWES felt the need to reach a wider audience using new and untried methods of communicating with the public. Specifically, their idea was to create a traveling show, based on the prototype of the "old-time medicine show." Instead of peddling quack medicine, they wanted to use the medicine show format to present the ideas of energy conservation and renewable energy resources in a pleasurable and entertaining way.

The writer proposed an investigation of the NWES to discover their methods and their effectiveness. In order to accomplish this, an arrangement was made with the NWES to travel with them during the 1977 summer tour of Montana and document their activities in both video-tape and film. This close relationship with the show also allowed for easy access to the documents, letters, memos, newspaper clippings, and journals which the show had accumulated from its beginning in January, 1976.

Access to the structure of the show as well as a daily working relationship with the members of the troupe during the filming and videotaping which took place from early June to mid-September of 1977 provided an opportunity to examine all aspects of the show.

The conclusion reached through this process was that by drawing from the resources of many different mediums, the NWES has created a distinct and identifiable medium that speaks with a whole and unique voice of its own.

INTRODUCTION

In an attempt to convey the impact and sense of immediacy that the New Western Energy Show possesses, and to document more fully the conclusions of this study, this paper is accompanied by a 55-minute video-tape cassette.

This paper and the accompanying 3/4-inch video-tape color cassette examine and document the activities of the New Western Energy Show.

The written section deals with the Show's inception in November, 1975, and follows its activities until the end of the tour in September, 1977.

The video-tape was transferred from a 16mm color film which was filmed from June through September, 1977, and edited during the winter and spring of 1978.

The paper and video-tape are designed to be used together to present a comprehensive investigation and visual documentation of the Show. The paper provides the background information, the facts and the figures. The video-tape presents the sights, sounds and physical dimensions of the Show as filmed during its tour around the state of Montana in the summer of 1977.

CHAPTER I

NEW WESTERN ENERGY SHOW, SUMMER OF 1976 TOUR

During July and August of 1976, the New Western Energy Show (NWES) made its first tour of Montana. The thirteen towns and cities visited by the NWES witnessed a unique form of communication, probably not experienced since the last old-time medicine show passed through those communities.

The NWES used the traveling medicine show as the archetype on which the show was formed. The members of the NWES pulled their trailer into a community, folded out a stage as a band of musicians struck up a few tunes to attract an audience, and when enough people had gathered to form an audience, the stereotypical barker would begin his pitch. But the barker of the NWES wasn't going to try to sell an elixir of the gods. Instead, he was going to apply his wiles toward introducing the audience to the ideas of energy conservation and the use of what are currently considered to be alternative sources of energy: the sun, the wind, water and wood.

These sources of energy are renewable. They have always been available and, if used wisely, could infinitely be a source of energy. They are considered alternatives only in societies that are dominated by energy systems dependent on coal, oil and natural gas. One of the coordinators of the 1976 NWES considers that domination a conspiracy:

> Our society is dominated by a finite energy conspiracy. Whether this conspiracy is conscious or unconscious, I don't

> know, but we all participate in it. To go to the root of the word: con-spire means to breathe together. What kind of energy do we--as a society--breathe in? What do we breathe out?
>
> Mostly, we breathe in coal--oil--natural gas: the fossil fuels that are in finite supply. To an increasing extent we breathe in the energy generated by splitting the nuclei of radioactive ores, which are also in finite supply. We also breathe in the sun, and the wind, and the forests. . . . However, we hardly think of the sun and the wind, of renewable energy sources. What makes our society go, for now, are the finite energy sources.
>
> So whatever controls the finite energy resources controls this society. Controls, as a corollary, the media of communication of this society. We don't see commercials for wind power on TV. We can't read ads extolling solar energy in Time magazine.
>
> And so it is that people who wish to talk about the wind and the sun as viable sources of energy must turn to other media--or rather, must create their own.[1]

The parent group of the NWES is the Alternative Energy Resources Organization (AERO).[2] AERO is a nonprofit citizens' educational organization formed in June, 1974, to present information about energy conservation and renewable energy resources, systems and devices. AERO was supported the first two years by two $30,000 Austin Foundation grants.

AERO's communication center is on Level Four of the Stapleton Building in Billings, Montana.

AERO attempts to achieve its goal of developing energy consciousness in Montana by:

(1) sponsoring workshops on renewable energy applications,

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[1]Wilbur Wood, Final Report on the New Western Energy Show for the Department of Natural Resources and Conservation. See Appendix 1.

[2]For additional background information on AERO see Request for General Support Funds, Appendix 2.

(2) providing speakers and media presentations for all interested groups,

(3) publishing a monthly, sometimes bi-monthly newsletter, Sun-Times,

(4) maintaining a library at its offices,

(5) working with state agencies on energy issues.[3]

Members of AERO, principally Elizabeth and Wilbur Wood, had discussed the idea of:

> Merging a pleasant fantasy (traveling Montana in the summers with a caravan of musicians, craftspeople, dancers and actors, 'New Age' media of various sorts) and practical need (to get specific, reliable information on renewable energy systems and technologies and attitudes to the people of this spread-out, sparsely populated region).[4]

Kye Cochran, AERO founder, encouraged the Woods in their traveling show idea and in November, 1975, arranged a meeting with Greg Jacobs of Ft. Wayne, Indiana, founder of the Eureka Railroad Corporation.

> Greg's interest was and is to use railroad cars as traveling educational workshops; toward that end he and some friends founded Eureka Railroad Corporation. With his architectural background, Greg became intrigued with how to design such a show. . . .
>
> In January '76 Greg returned to Montana with a set of beautifully drawn-up plans, and a proposal from his Eureka Railroad Corporation to design and build the show.[5]

A contract was drawn up between AERO and Eureka Railroad Corporation in which Eureka agreed to design and build a 25-foot theater-trailer for the NWES for $8,000. The trailer would feature a platform

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[3] Montana Renewable Energy Handbook, published by Montana Energy Advisory Council, March, 1977, was written by AERO administrator, Kye Cochran.

[4] Wilbur Wood, personal letter. See Appendix 3.

[5] Ibid.

to serve as a stage which would fold down out of one of the walls. The trailer would be used to transport the sets and costumes used during the theater presentations as well as the 4-foot by 8-foot, double-sided information panels which were to be assembled in a large circle around the theater-trailer.

> When Greg came out with his designs for the show, he labeled it Great Western Energy Show. That sounded fine, except that it was too close to Great Western Sugar Company (a Billings outfit). So we said, how about New Western Energy Show. After all, we are dealing with what is--to most people--new energy. (Ironically, of course, it is the oldest energy.) So we let that name sit a moment while we contemplated the fact that Montana Power's "wholly owned subsidiary" which mines the coal at Colstrip is called the Western Energy Company. Well, we thought, much of the impetus for this show is a response to the kind of "development" that Western Energy represents . . . so we went with the name. (We also noted that with just a transposition of letters NWES becomes NEWS--and we felt we were bringing the news.)[6]

Since Elizabeth and Wilbur Wood had been instrumental in conceptualizing the idea of the now formally named show, they agreed to be coordinators.

> Our 'lead time' now was quite short. We knew that if this show was going to happen--this year anyway [1976]--things would have to break very smoothly for us. We projected a budget--for building the show, assembling the devices and displays, paying troupe-members very minimal salaries, and making the tour. . . . The total projection came to something over $20,000--and the final budget ended up at near $30,000. Really quite low for what we managed to accomplish.
>
> We decided what roles we'd have to fill: we needed financial backing to begin with, and we got that with some 'advance' money from AERO and some private individuals (including, particularly, Kye) guaranteeing the show's expenses; because we were never sure of getting the show funded, we were constantly conscious of keeping expenses

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[6] Ibid.

> low, and this flavored our whole approach. . . . We also needed technical personnel, theater and music personnel, a traveling 'front person' to set up sites and promote the show.
>
> We somehow had to find people who were willing to make very little money just to participate in this idealistic (but ultimately, we felt, practical), crazy (but thoroughly thought out) scheme.[7]

Although appeals were made to the drama departments of various Montana colleges, the theater and music personnel were recruited through personal contacts. ". . . Our show probably sounded a little too crazy for most people in schools."[8]

> From the beginning, AERO's philosophy has been to do more with less. For our projects we try to find talented people who are able to "live lightly on the planet" and don't need to earn what is considered an ordinary adequate salary. . . .
>
> Our people work on the New Western Energy Show because they believe in the idea and because they value the experience.[9]

This quality of believing in the NWES ideas implies a commitment by the troupe members that is perhaps the greatest strength of the show. Simply being present on the grounds of the show every day left each member open to the constant demands of the visitors for more and sometimes very specific information on various aspects of the subjects the show deals with. It was the practice of the troupe members to wear shirts and dresses of the same striped, multi-colored cloth so they could be easily identified as members of the show.

Troupe members were responsible for being present on the grounds at various times of the day, assuring that there always would be several representatives available to answer questions, attend the

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[7]Ibid.

[8]Ibid.

[9]Proposal for funding the 1977 NWES, p. 11, see Appendix 4.

information booth which housed an excellent library on renewable energy and generally elaborate on the exhibitions on display.

This personal rapport with visitors created a unique opportunity for the flow of information. Troupe members were able to learn what types of energy-related activities were happening around the state and to use this information as a frame of reference in later exchanges.

When the troupe gathered to put the show together on June 1, in Roundup, Montana, a small town fifty miles north of Billings, there were fourteen members. In addition to Elizabeth and Wilbur Wood and designer Greg Jacobs, the personnel included:

> Susan Ward, . . . theater director; Scott Crichton, . . . head musician; Jim Baerg, . . . head technician; Nan Billingslea, . . . food coordinator; . . . David Polovin, . . . public relations--our 'front man'. All these people doubled (tripled, quadrupled) as artists, actors, cooks, handy-people, etc., as did the rest of the troupe. . . . Randy Reinhart (who joined as second technician) . . . Emoke (dancer, singer, actress); Anne Garde (the rapscallion 'barker' who held the theatrical performances together); Robin Leenhouts (artist, set designer, juggler); Angie Leprohon (musician, actress), and Bob Carter (our invaluable 16-year-old Jack-of-all-trades).[10]

The Musselshell County Commissioners granted the NWES rent-free use of two large county buildings at the fairgrounds near Roundup. Here the troupe assembled and built displays and exhibits for the tour. The mayor of Roundup provided the troupe with rent-free living accommodations in a building he owned.

A 36-foot long, 1955 school bus was purchased to transport the troupe members and provide a common living space. The bus was outfitted with a propane stove, icebox, closets and bunks. While on the

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[10]"How it Happened," AERO Sun-Times, August/September, 1976, p. 8.

tour the troupe's meals would be prepared in the bus and personal items could be stored there. The show also acquired a one-ton grain truck to transport heavy equipment and pull the theater-trailer.

The tour route had been decided in March at a meeting of AERO and NWES members.[11]

> We had decided to focus mainly on small towns--partly because this was an untried phenomenon, this show, and we didn't know how well we'd get it together; but mainly because we felt we'd be an attraction in any small Montana town we entered (nothing ever comes to small towns anymore, it seems) and we felt that people in small towns and rural areas would be more likely to implement the ideas and techniques we were dealing with immediately, than city-dwellers. And we were interested in getting folks busy devising their own renewable energy schemes for their own scenes. Once an inventive farmer has seen a solar collector, he'll say: I could improve on that! This was our reasoning.
>
> Another factor in our choice of small towns was the availability of sites for free. Fairgrounds, etc., tend to be used seldom, and tend to be available to whoever needs them, in small towns. Not so in cities.
>
> The route? We wanted to cover every major--shall we say "ecosystem"--every major biotic-community--every type of terrain from plains to mountains in our tour. We wanted to demonstrate the suitability of various types of renewable energy systems--sun, wind, water, wood, etc., in different places.[12]

David Polovin, the show's advance person, located suitable sites, arranged for publicity and organized participation from local craftspeople, musicians, inventors, or anyone who potentially would be interested in the show.

As it turned out, many people were interested, as evidenced by this letter from Senator Lee Metcalf endorsing the show:

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[11] See Appendix 5.

[12] Wilbur Wood, personal letter, see Appendix 3.

> A splendid, innovative idea. . . . For too long now, the American public has been told that solar and other alternate energy sources are fine but must await future development. Your show will do much to prove through example that this is utter nonsense. . . . I am especially pleased that your organization is 'thinking small'. Small scale energy plants are ideally suited to isolated and sparsely populated areas such as Montana. With commitment and ingenuity, Montanans can do much to relieve their dependence on high-priced and environmentally destructive energy sources.[13]

Artist-designer Robin Leenhouts provided the graphic designs for the brightly painted trailer-stage. This graphic style was extended to the colorful energy information panels spread out in a circular pattern in front of the stage. Much time was spent in preparing the material, laying out the designs and hand-painting the 4-by-8-foot panels.

> A visitor passing under the bright red banner-entrance to the show encountered first the colors and graphics of the 'energy information panels.' These explained the need for public awareness of energy conservation and renewable energy in an age of fossil fuels and energy waste. Additional panels described experimental housing units such as the University of Minnesota's 'Oursbouros' house and New Alchemy Institute's 'Ark' which are energy conservative and integrate solar, wind, and other renewable energy systems.
>
> Montana Bills 96 and 663 were the topic for a third set of panels. These bills were signed into law in 1975; one provides money for 2½ percent of Montana's coal tax for research, development and demonstration of renewable energy sources, and the other provides a tax break for homeowners who install systems or devices which utilize renewable energy.[14]

The information panels were incorporated with the equipment and devices that demonstrated practical and theoretical uses of renewable energy resources.

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[13]"New Western Energy Show Report," AERO Sun-Times, April, 1976, p. 5.

[14]"The Exhibits," AERO Sun-Times, August/September, 1976, p. 3.

Adjacent to the information booth, five garbage cans (one each for glass, paper, aluminum, metals and organic material) illustrated two exhibit panels that contained information on waste recycling and resource recovery.

The Solar Wall was the largest of the exhibits. It represented the south wall of a "solar" home, and consisted of two operating thermosyphon-type solar water-heating panels . . .; a 2' x 8' Trombe hot-air collector wall; a 4' x 8' section of 'energy conservative' house-wall built of 2" x 6" studs placed 2' on center and filled with 6" of fiberglass insulation for maximum thermal efficiency; and display panels describing the principles of solar energy conversion and 'sol-architecture'.

A commercially manufactured 'Miromit' hot water collector and a parabolic hot air collector stood adjacent to the Solar Wall.

Other intriguing solar devices on display were a solar oven (in which cookies were baked daily for visitor consumption), a solar dehydrator for drying fruits, vegetables and tea leaves, and a solar distillery which recovered distilled water from the brackish water using only the 'amazing rays' of the sun.

Batting the breeze well above the visitors' heads, a Kedco 1200 watt wind generator mounted on the bed of the show's truck (along with batteries and the inverter) was the outstanding element of the Wind Power display. Wind generated electricity powered several blower and pump motors in the Solar exhibit. On the ground, a smaller 400 watt wind generator (built last November by participants in an AERO wind energy workshop in Billings) stood on a short tower with its cowling removed so that people could see what the inside looks like. Nearby, parts from an old 110 volt Jacobs Wind Electric were displayed before an explanation panel. Also featured: a Gemini Synchronous Inverter and a bicycle generator to operate it. A bicycle rider could produce DC current, have it changed to AC current, and (if he or she were a strong enough pedaler) send current 'back into the line'. Near the wind exhibit stood a small octahedron-type tower, on which was affixed a Dwyer wind speed indicator.

A Norwegian Jotul stove, Fisher steel stove, and an Aglow fireplace heat exchanger and their adjacent information panels comprised the Wood Exhibit. The panels were illustrated with pastel drawings of homey "wood burning" scenes by Bozeman artists Stacey and Sage Hamms.

An arch-shaped water-information panel supported examples of a 2 kilowatt impulse-type water turbine manufactured by Independent Power Developers in Noxon, Montana; and a small hydraulic water-lifting ram loaned to the show by the Skookum Company in Oregon.

A neatly self-contained exhibit built by Glenn Nelson of Whitefish, Montana described the merits and operation of the Swedish Clivus waterless composting toilet which he sells.

> Renewable human energy was demonstrated every day as show members and visitors climbed onto the Rodale bicycle apparatus which could grind wheat, shuck corn, and make a myriad of other tasks easy by means of foot power (to the infinite fascination of kids).
>
> Residents of each community visited by the New Western Energy Show were encouraged to bring any exhibits of their own which were appropriate to the energy conservation/renewable energy theme of the NWES, and display them at the show. As a result, a variety of science fair exhibits, homemade wind generators and solar panels, insulation exhibits, a flying saucer (!), and home-crafted 'human energy' wares added color and interest to the show in different towns.[15]

The most obvious component of the NWES was the theater performances given every afternoon and evening at each place the show visited. During June in Roundup, the eight theater-people wrote and rehearsed all of the theater material that would be used in the performances given the following months.

> One reason we were able to build nearly 1½ hours' worth of original material, plus a great deal of stuff we never chose to use, in a month's rehearsal time under sometimes less than ideal conditions, was the focus of the material. We had a definite theme which we wanted the pieces to state--we cannot abuse the earth and her resources indefinitely, and there are alternatives to our wasteful habits--and also, we all believed in that theme, or we would not have been together.
>
> In spite of our never having worked together as an ensemble, and although only half of us had much experience with acting (a couple had never acted at all), and although several of us had heavy commitments to other aspects of the show which often bit into rehearsal time, the focus of the material (and, at times, just the fun of it) held us together and caused us to produce. . . .
>
> As a loose overall description of the playing style, it was street theater, including melodrama spoofs, story theater with a touch of Bulwinkle, dance and jazz-narrative overlay, vaudeville exchanges and whick bits shaped as jokes, and a political play in several scenes. The playing style was generally direct to the audience and the format allowed some freedom for ad libs and comments to the audience, especially for the Barker. . . .
>
> Several of us had seen the San Francisco Mime Troupe, and Robin [Leenhouts] and I [Susan Ward] had seen the Family Circus

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[15] Ibid., pp. 3-4.

> from Oregon, and the work, style, and forms used by these troupes were influential in our conceptions of where the show might go. What most shaped our style and form were the obstacles we anticipated in holding our audience: heat, noise, wind, outdoor distractions, and widely varying levels of age, interest and attention span likely to exist in any audience. A quick pace, variety, and clear communication on issues to which we had to find the vital parts, those which were real to our audience; these were our objectives. The power bill, water, land, jobs--rather than aesthetics and spiritual values only--were what we emphasized.
>
> I felt that our function was to warm people to our ideas, to make them more receptive and curious, to attract people who would not otherwise come to an energy fair, and to say to those who were already on our side, "Right on! The word is spreading!"[16]

At the end of August the NWES had visited "13 Montana towns, stayed an average of 3 days per town, and played to an estimated 10,000 people over the eight week period."[17]

At the completion of the tour, the show's financial operations were still supported by loans from AERO and private individuals. Grant proposals had been made to private foundations and to the State of Montana for a Bill 86 grant. Senate Bill 86, the Montana Alternative Energy Research Development and Demonstration Act of 1975, was passed during the 1975-76 biennium legislative session and provided about $700,000 a year to help people to research, develop and demonstrate renewable energy systems.

The Renewable Energy Advisory Council reviews the grant proposals for funding from 2½ percent of the coal tax but the final decision rests with the Department of Natural Resources and Conservation. The decision was not announced until after the show's tour was completed but the proposal was accepted and the NWES received a grant of $22,000. Another

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[16]"The Theater," AERO Sun-Times, August/September, 1976, pp. 6-7.

[17]"New Western Energy Show 1977," AERO Sun-Times, February/March, 1977.

$8,000 was received by donations from AERO and private individuals.

SUMMARY OF 1976 NEW WESTERN ENERGY SHOW EXPENSES

Personnel, salaries	$10,105.40
Equipment	12,526.44
Promotional expenses	1,273.22
Operations	4,038.51
Food	1,779.72
TOTAL	$29,723.29

> This does not reflect the very large number of donations to the show--of labor, services, tools, food, vehicles (one was loaned and one was purchased by AERO separately from the show's budget), and living and working quarters. If these items could be totaled, by their monetary value, the actual cost of the show would certainly approach $40,000.
>
> The $1,081 difference between the NWES--'76 budget of $30,805 and the final costs of $29,723 are being used by AERO to begin work on NWES--'77.[18]

The following statement taken from fifty-five pages of newspaper clippings compiled from Montana newspapers during July and August, 1976, is typical of the responses the NWES received:

> Conventional energy thinking is preoccupied with large-scale centralized energy production units as well as fossil and nuclear fuels. The experts on energy who keep saying that no other alternatives are feasible don't realize that enough small-scale alternative energy technology, especially for solar and wind devices, already exists to have a considerable impact on petroleum consumption.
>
> The demonstrations of the [New] Western Energy Show that has been traveling around the state this summer prove it.[19]

The NWES summer tour of 1976 ended with a good record of attendance, pages of favorable reviews in both state and national publications and a grant to cover all the financial expenses. An auspicious beginning

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[18] Proposal for Funding the 1977 NWES, see Appendix 4.

[19] Great Falls Tribune, August 8, 1976.

for a project that was only a fantasy in the minds of two people only months earlier. But given all its success, there were some obvious incongruities involved in the show.

> The irony of the New Western Energy Show is clear: this is a show about renewable energy, but we use a great deal of non-renewable energy to put it together and get down the road.
>
> For example in June 1976, the Montana State Board of Natural Resources approved construction of two additional coal-fired electrical generating plants at Colstrip, units 3 and 4, before anyone has seen what Colstrip 1 and 2 will do to the air, water and land, the plants and animals and people of southeastern Montana. All 15 members of the show deplore this action. Yet we run our electric saws, drills and sanders on coal-generated electricity.
>
> We also deplore excessive consumption of oil, but rely on gasoline to get us from town to town on our 2,000-mile summer tour of Montana.
>
> We promote recycling all garbage and waste into forms of wealth--glass into glass, metal into metal, paper into paper, organic waste into fertilizers and methane gas--but after our show's preview in Roundup (June 29-30, 1976) we clear out of the fairground buildings where we've been working for a month and a half, and I hauled a pickup load full of paper, paint cans, plastic, miscellaneous glass and metal and wood scraps to Roundup's "sanitary landfill".
>
> Besides all our trash and waste and pollution, that we carelessly leave to the future, we'd be wise to leave some fossil fuels. We'd be wise to begin phasing out of burning coal and oil and natural gas (and also out of splitting atoms of uranium, which is finite, too, like the fossil fuels). Why? Because we need these non-renewable sources of energy for other things.
>
> This is quite apparent as we assemble our show. We use fossil-fuel-based plastics and foams and insulating materials on our solar collectors. We use oil to lubricate our wind generators. And--indirectly--we use coal, in the form of coke alloyed with iron to make steel for towers and tanks and methane digestors.
>
> To heat us and propel us down the road, we no longer need the fossil fuels. Not if we redesign our houses, our trucks, our lives. We can heat our houses with the sun, and with carefully used (constantly replanted) forests. We can erect rows of wind-generators along railroad tracks and highways, and power our trains and trucks and buses on wind-generated electricity. We need to save the fossil fuels for all the useful materials we can refine from them. We need these precious finite resources for the concentrated surge of energy they give us.

> The irony of the New Western Energy Show is also its message: using non-renewable energy--but using it consciously, respectfully, appropriately--we can move society into a renewable energy reality.[20]

When the show disbanded after the tour, the trailer and bus were stored for the winter on the down-wind side of a barn on a ranch near Lavina; the one-ton truck was parked in a driveway in Billings; and the troupe members went back to Milwaukee, Baltimore, Seattle, or wherever they had come from in the spring. Some intended to live in Montana for the winter, and they agreed to take slide shows, video-tapes, exhibits and stage shows to schools and civic organization meetings throughout the state.

Two members, Anne Garde and Angie Leprohon, spent the winter writing new theater skits. They prepared a half-hour show of skits and songs focused on the energy conservation and renewable energy themes like the past summer's material, but this show was geared specifically for a children's audience.

The necessary arrangements were made and the now-named Springtour was scheduled to appear at thirteen Missoula area elementary schools during April and May 1977.[21] Garde and Leprohon became co-directors and brought four new people into the show from Missoula: Barbara Balock, Steve Lohning, Jane Baker and George Ryan.

A unique feature of the Springtour was a classroom energy game that was played after the theater performance. Portable stage settings, designed and painted by NWES artist Robin Leenhouts, were set up in the

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[20]"The Irony of NWES," AERO Sun-Times, October/November, 1977, p. 5.

[21]See Appendix 6.

gymnasium for the theater performance. After the performance, the six troupe members divided into three teams and went around to the classrooms and played a game with the children which acted as a device for further discussions about energy use and misuse. The game, invented by the troupe, keep everyone's attention and proved to be an effective learning tool.

CHAPTER II

NEW WESTERN ENERGY SHOW, SUMMER OF 1977 TOUR

One lesson learned from the 1976 NWES was the importance of having enough "lead time" to plan and arrange the many details that go into producing a successful show. Toward this end, the planning for the summer 1977 show began early in the year.

By February the strategy had been established, a tentative list of towns to be visited scheduled,[1] and an overall description of events determined. The planning was influenced by feedback received from the previous year.

> For a first-time venture, the show attracted enormous interest and support. However, we at AERO feel that certain aspects of the show deserve further work. In particular, we want to respond more thoroughly to the specific needs and potentials in each community where our 1977 show appears. A letter from a long time AERO supporter, written in September 1976, suggests the approach we have decided to pursue:
>
> ". . . my principal suggestion concerns advance and follow-up work, both of which will tell the tale in making the show a good organizing instrument. I would presume that another year, when the show has some reputation, there will be many communities eager for it. I would choose them on the basis of local sponsorship and their willingness to do advance preparation. You may need one or two people who do nothing but advance and follow-up work. I'm not thinking simply of things which draw crowds, but things which engage people in learning-doing about alternate energy."
>
> --from a letter dated 27 September 1976, from Richard Austin, who was instrumental in helping AERO obtain funding to support our first two years of existence.

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[1] See Appendix 7.

> Simply assembling the show physically last year was so overwhelming a task that we had too little time, energy and money to devote to the kind of local organizing Richard Austin recommends.
>
> We now have certain basic materials to adapt and build upon for this year's show: truck and trailer, bus for living-cooking quarters for the troupe, information booth, display panels and devices, theater props and scripts. Most important we have a core of experienced, capable and enthusiastic people to carry on this year's show.[2]

Robin Leenhouts and David Nimick became the new coordinators of the show. Randy Reinhart, a technician in the previous year's show, became the advance person. During the early planning stages in Billings, it was decided that the 1976 tour had been too strenuous for the troupe.

> By the end of the summer NWES people felt 'burnt out' and also felt that we had only brushed the surface of each community. So this year, instead of 13 towns in eight weeks, we plan to go to nine towns in nine weeks. Five days in a town, two day's travel and rest, five days in the next town, and so on.
>
> Last year we concentrated on towns in the 1,000 to 4,000 population range. After the '76 tour, requests that we visit bigger population centers poured into the AERO office. So this year we are gearing up for the larger cities of Montana, including Great Falls, Billings and Missoula. We will anticipate and prepare for larger audiences with potentially broader ranges of interest, information, and abilities.[3]

While formulating plans for the 1977 show and in writing the proposals for funding, it had been intended to create a Renewable Energy Action Coordinating Team, which would handle all advance work, assist in the show's community activities and, after the tour, help document the show.

Again, as in 1976, the NWES submitted a grant proposal to the Renewable Energy Advisory Council requesting $44,800, the amount of the

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[2]"New Western Energy Show, 1977," AERO Sun-Times, February/March, 1977, pp. 2-3.

[3]Ibid., p. 3.

1977 budget, from Bill 86 coal tax funds. Of this amount, $5,500 was to be allocated to the Renewable Energy Action Coordinating Team. Although the Council approved the grant request in April, several adjustments had to be negotiated. The main concession was the elimination of the Renewable Energy Action Coordinating Team. It was agreed, however, that the $5,500 budgeted allotment could be used for film and video-tape documentation of the show.

In April, 1977, the writer approached Wilbur Wood, AERO director and 1976 NWES coordinator, seeking approval and cooperation from the NWES in allowing him to accompany the show occasionally and document its activities with portable video-tape equipment. The results of the videotaping would be used in conjunction with a Master's thesis at the University of Montana.

Wood favored the proposal and turned it over to the current coordinators, Leenhouts and Nimick, for their consideration. After some negotiations about costs and objectives, an agreement was reached in which the NWES would finance the production of a 16mm color film as well as the originally proposed video-tape project. An account of these activities appears in Chapter III.

Given the breadth of its scope, it is difficult to describe the NWES as any one thing. Perhaps it is best seen as a process. Intrinsic to that process is the quality of being able to change to better facilitate the flow of information on renewable energy from source, however technical that may be, to the level of the community, family or individual energy user. An example of the ability to perceive a need and address itself to fill that need can be witnessed in the creation of the children's workshop.

During the 1976 summer tour and the Springtour of Missoula-area elementary schools, it became obvious that children learned quickly and easily the basically simple and sensible concepts of renewable energy and conservation.

Child-oriented energy education workshops were conducted most afternoons in the communities visited.

> We juggled and we sang, we constructed kites, experimental windmills and wheels, a solar cooker or two, drew sun murals, and made and decorated seemingly millions of pinwheels.
>
> First, we'd talk to the kids about their homes and their energy wages (what is energy anyway?) and then often we'd go look at some of our exhibits (a cookie from the solar oven). Now in the park there are all sorts of examples of solar collectors--the black path you walk on, a south window or a plant storing energy for the winter. We'd begin one way or another to talk about "renewable" energy. Then we'd propose to build our own town for when "we" grew up. Out would come the crayons, colored paper, glue, scissors, pins, straws, tape (anything), and a big piece of newsprint (the kind newspapers give away for free or cheap) on a firm backing, and we'd start.
>
> For the sake of order we'd draw a street or two, but streets of course, perpetuate cars and energy use to say nothing of waterproofing good land. We would talk about that and sometimes the results would be a "Bike and Pedestrian Only" street --or to do away with a street altogether and convert the space to public vegetable and flower gardens. The kids loved to plant (and build) more trees--"fruit and nut trees?" we suggested. Animals would appear--even sheep for sweaters. We'd share windmills (remember the pinwheels!) and compost heaps. Inevitably the paper scraps would go to the neighborhood recycling center which would crop up when each child would begin to pile up bits of things in front of him or her.
>
> We would talk about how a house sits on the land--about south-facing windows that let in heat or a south slanted roof to set solar collectors on and the best places for growing things, for privacy, for sharing. The surprising thing was after we "big kids" got the ball rolling, the children's imaginations and capacity to grasp the simple concepts of a simpler more energy-efficient way of life took over. They became the city planners, architects, community organizers. Soon we would have a beautiful 3-dimensional community full of people sharing their lives and resources with each other.[4]

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[4]"Let the Kids Take Over," AERO Sun-Times, October/November, 1977, p. 15.

Several physical aspects of the 1977 NWES were improved from the previous year.

> We found last year that we had two problems with some of our hardware: it was too heavy, and it was not integrated well enough with the other functions of the show. This year we will eliminate some of the heavier components and substitute smaller working models. We will also (1) use a larger inverter--and possibly a second wind generator--to enable us to add our slide projector to the devices we run on wind-generated electricity, (2) build a 'bread box' solar water heater to heat all water used in the bus, (3) build a working solar shower, for use with our water heating collectors.
>
> This year we will incorporate an information sheet 'bar' or 'smorgasbord' to the information center. This will consist of single fact sheets, selling for 5 cents apiece, on various aspects of renewable energy and energy conservation. A visitor will be able to assemble his/her own packet, and we will provide a cover and staple them together. We will also provide a 'reference table', where people can sit and research information from publications provided.[5]

The NWES consistently demonstrates the quality of evaluating itself in an attempt to discover if there is yet some other way of introducing more access to the information available on its theme of renewable energy.

When the search to find a person both knowledgeable and experienced in renewable energy who was not committed to some other good cause proved fruitless, the show decided to invite experts in various fields to be guests of the show for a week at a time. These visiting experts, who were labeled "hot shots", shared their experience and expertise with audience and troupe members through slide shows, demonstrations, town forums, and rap sessions.

> Here is a list of our hot shots, what town(s) they joined us in, and why we liked them so much. Without their help, enthusiasm, and guidance, the New Western Energy Show would not have been nearly as successful this past summer.

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[5]"New Western Energy Show 1977," AERO Sun-Times, February/March, 1977, p. 4.

Jay Baldwin (Roundup, Great Falls, and Kalispell) is an excellent tinker, inventor, and teacher and presently is technical editor for Coevolution Quarterly . . . Jay not only fostered some of the ideas for various displays but generously loaned us a beautiful 1941 Paris-Dunn wind charger. Having applied his inventiveness and skills to his own shelter and energy supply in several different settings over the years, Jay could easily talk about the nitty-gritty of different systems.

Jim Baerg (Miles City) was the technical director for NWES in 1976 and since then has designed and built two passive solar-heated buildings: a house near Livingston and a greenhouse near Circle. His eastern Montana farm upbringing and his easy-going-ness made him the ideal hot shot to talk with the ranchers and farmers who visited us in Miles City.

Jeff Barnes and Howdy Reichmuth (Glasgow), an architect/engineer team from Oregon, brought us expertise about solar concentrators and Montana (they had recently helped do research for Montana's Energy Conservation Plan). This lively duo talked easily and knowledgeably to the officials of the unused Glasgow AFB (presently unused and possible site of a renewable energy manufacturing site), to the mayor of Glasgow about solar-heating the municipal swimming pool or to show visitors about integrated solar greenhouses.

Lillian Leenhouts (Hamilton), mother of NWES co-director Robin, is an architect with her husband Willis, in Milwaukee. They have been incorporating passive solar design features in their buildings for over twenty-five years. . . .

Jim Schmidt (Missoula), director of the National Center for Appropriate Technology in Butte, joined us for an evening to talk to a large gathering about public utility districts. . . .

Beth Coppinger (Helena) joined us from the Ecotope Group in Seattle to talk about recycling and the differences between source separation and resource recovery. Her participation in our town forum and discussions with individuals helped provide input into Helena's current campaign to decide what the city is going to do with its waste.

Jack Park (Livingston) is designer of the Kedco wind generators and various solar greenhouses. . . .

Lane deMoll (Billings), left her busy job with RAIN magazine to argue for the virtues of appropriate technologies, not only in energy but all aspects of life.[6]

Again, as in 1976, the NWES began collecting the vehicles, exhibits, displays, and personnel in mid-May at the Musselshell County

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[6]"Hot Shots," AERO Sun-Times, October/November, 1977, p. 14.

fairgrounds outside Roundup. For the second year the county commissioners had donated the use of the two large buildings at the fairgrounds. There the work began of constructing new and reworking old exhibits, augmenting old and creating new information panels, and tending the many jobs necessary to get the show ready for the road. A third vehicle a pickup truck, was added to the caravan.

The personnel for the 1977 show[7] were recruited by personal contacts and responses to an announcement published in RAIN, a magazine published in Portland, Oregon.

The importance of the troupe personnel has been stated by the 1977 NWES coordinators, Leenhouts and Nimick.

> The two aspects of a traveling show most important in shaping its form and quality are its philosophical messages and attitudes and approaches of its staff. The NWES's strong "do more with less" philosophy has its foundation in Montana's grassroots citizen reaction to the threat of massive stripmining of the Northern Plains. This philosophy is reflected in the attitudes and lifestyle of personnel whose qualifications include steadiness, sense of humor, ability to adapt, sense of equality, and ability and willingness to live lightly on the land. We have found to our delight that persons with such qualities commonly have talent and common sense, take great pride in their work, and are able to work hard in concert with each other.
>
> Allocation of the tasks depend on individual abilities. With a small troupe almost everyone must (for instance) fix carburetors in the morning, talk intelligently about recycling in the afternoon, and act in the evening performance.[8]

Thanks to the efforts of the previous year's show, the largest task facing the 1977 troupe was preparing new theater material.

The afternoon matinee show was created from the script written by Anne Garde and Angie Leprohon for the Springtour. Since the material

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[7]See Appendix 7.

[8]"Energy Theater Update," RAIN, February/March, 1978, p. 17.

already was written and three of the troupe members had performed in the Springtour, the matinee performance was largely a matter of rehearsal. Directed by Susan Ward, who had not seen the Springtour performance, the rehearsals progressed smoothly during June and by the first performance in Roundup July 2 the matinee show was being performed well.

The material for the evening show was written in its entirety during June. The method of its creation was improvisation. A member of the cast would propose an idea and the cast would improvise on the idea. If members felt inspired by the idea, they would go off singly or in pairs and create an original script. From these scripts and guided by the theater director, an evening performance of more than an hour was created. And although the evening show was designed for an adult audience, it was seen and appreciated by children as well.

> In comparison with the more than five months of planning, preparations, and rehearsals, a two-month tour might seem short; but on July 6, our opening day in Miles City (after the Roundup review), no one really knew how long those two months would take . . . our first 1 P.M. opening time had passed before the collectors were filled with water and the white rope strung up around the show. We didn't know how many people to expect, but later in Glasgow and Great Falls, we realized that in Miles City our visitors were numerous and receptive. In these first three towns the show took its final form. The theater pieces picked up the right rhythms, slide shows and other presentations were refined, different ideas for children's workshops were tried, and talking with visitors came more easily.
>
> Then on to the mountains and forests of western Montana--Kalispell, Hamilton, and Missoula. There our emphasis shifted. People were finally looking at the wood stoves, questioning the winter sun's stick-to-itivness, and wondering about solutions to transportation problems. Our audiences were larger (between 100-250 per show) and we were encouraged by and encouraging to the many people who were already working on their own renewable energy projects.
>
> In Helena, we learned the value of having an ideal site for the show, in this case a downtown park centrally located and along, not a busy arterial but, a pleasant pedestrian mall.

> Less extraneous noise made being there peaceful, and the walking mall brought receptive people.
>
> The winds in Livingston nearly blew the show down! And cold cloudbursts kept all but diehards away all five days. Then home at last: Billings brought out AERO's many old friends and many who will become friends.
>
> Our last stop, Butte, was an unscheduled special added attraction. We were invited there for three unusual days by the National Center for Appropriate Technology, the Montana Energy and MHD Research and Development Institute, and the Butte-Silver Bow Anti-Poverty Council. It was an offer we couldn't refuse for several reasons, but most importantly it made Butte the first community ever to invite us, publicize us, and pay us to come; obviously the ideal way to keep a show such as ours on the road. As well as our exhibits and library set up in NCAT's front yard, we took our trailer and theater show to grade schools and a city park, thereby really reaching out into the Butte community. Our final performance for 1977 was to a wonderful crowd of 260 folks.[9]

The NWES is what it pretends to be. Through its many ways of communicating it extols the virtues of using the sun to help provide energy needs. For more than three months the show members heated water for showers and washing dishes with the "bread box" style solar water heater on the roof of the converted school bus in which they traveled. Bread and cookies were baked almost daily in the two solar ovens on display in the show, and the flour used was often ground in the foot-powered grinder. Wind-powered generators produced electricity for pumps and to charge batteries. The members of the troupe did the things they talked about. In the case of the NWES, the medium really was the message.

Like its prototype, the traveling medicine show, the NWES is a vehicle for communication. It is a logical synthesis of many forms of media: printed informational materials in the form of fact sheets, books and pamphlets for sale, and a traveling library; theater

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[9]"Coordinators' Report," AERO Sun-Times, October/November, 1977, p. 4.

presentations with components of dialogue, narrative, song and dance; illustrated display panels, slide shows, lectures; and informational and "hands-on" workshops for adults and children.

By dictionary definition the NWES can be described as a medium; by observation it becomes a very appropriate medium. Among the energy-conscious it has become even an archetype.

> Several regional and national publications (High Country News, RAIN Magazine, Co-Evolution Quarterly, Wind Power Digest, etc.,) have written articles on the show, and as a result we receive a good many requests from organizations and agencies in other states who are interested in putting together a similar show. The New Possibilities Show, a creation of California's Office of Appropriate Technology (OAT) and "inspired by the New Western Energy Show," according to OAT's Gigi Coe, has been traveling in California (under the supervision of Anne Wilsnack, a 'graduate' of NWES) since last May.[10]

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[10]"The Word Spreads Fast," AERO Sun-Times, October/November, 1977, p. 19.

CHAPTER III

FILM AND VIDEO-TAPE PRODUCTION

The purpose of the video-tape production was to create an hour length video-tape that would satisfactorily document the activities of the 1977 summer tour of the NWES. The writer had seen the 1976 tour in Bigfork and had been impressed by the show and the commitment to it by the troupe members.

The themes of energy conservation and the use of renewable energy resources in supplying daily energy needs are subjects worthy of examination and ones that need more public exposure.

In early May, 1977, arrangements were made with Instructional Materials Service at the University of Montana to use a Sony portapak video-tape recorder and camera for periods throughout the summer with the intention of editing the video-tape into an hour program the following autumn. The fact that this equipment was capable of only black and white picture reproduction was restrictive, considering the colorful graphics, costumes, and stage sets of the show. But because the equipment was lightweight, therefore capable of being used by a single person as well as its immediate availability, it was decided to continue with the half-inch, black-and-white video-tape format as originally proposed.

Negotiations had begun in April with the coordinators of the NWES about the possibility of producing some audio-visual material for them, but they were undecided about what format they wanted if, in

fact, they wanted to get involved at all. During the 1976 tour the show was videotaped on two occasions; there was some Super-8mm film shot, and many 35mm color slides were available. But it was not a coordinated effort. As a result, the show had several fragments of visual documentation but no satisfactory program to present in any single format.

The occasion of the NWES Springtour being in Missoula provided an opportunity to begin compiling video-tape recordings. The first began at the DeSmet elementary school May 16. The members of the cast seemed friendly and cooperative and the atmosphere of the school was casual. The use of a monopod and hand-holding the camera resulted in an image characterized by shaky motion. In subsequent video-taping sessions, after getting used to hand-holding the camera, the results were more stable.

The following day the performance and classroom games conducted at Central elementary school were video-taped. This time the camera was mounted on a tripod positioned in the center of the student audience and an assistant was conscripted to hold an external microphone mounted on a 6-foot extension rod. This combination produced a better quality video and audio recording, but the long segments of stage action seemed static.

The three half-hour video-tapes recorded during these sessions were later edited onto a half-hour tape, which was viewed by the NWES troupe assembled in Roundup the following month.

On May 21, during a telephone conversation with NWES coordinator David Nimick, it was agreed that the NWES would pay for production of a 16mm color film documenting the activities from putting the show

together in Roundup through the end of the summer tour. Eight thousand feet of film were to be shot with the hopes of producing an edited film of about forty-five minutes.

An itemized budget of the projected production costs[1] was requested, and it was agreed that filming and videotaping activities would begin in early June.

> Like all other aspects of the production, the intended playback requirements have to be kept in mind right from the beginning. If the intention is to use the production for larger audiences, then the best thing to do is make a film copy. Often two releases of the same program are required; one for the video network and one for theater production.[2]

The NWES coordinators knew they wanted an audio-visual documentation of the show to be used for obtaining funding and for orienting new troupe members unfamiliar with the show, but beyond that, they were unsure of its possible use. To keep as many options open as possible, the decision to produce the 16mm color film was a good choice because it would allow for film to video-tape transfer at some future time.

The NWES agreed to pay for the half-inch black-and-white videotapes as well. It intended to use the videotaped materials for informational, orientation and promotional material.

Missoula filmmaker Swain Wolfe volunteered to film segments of the evening theater performance and interviews with troupe members while the show was in Missoula. This was a valuable contribution to the film production as it eliminated a costly rental expense for sound sync equipment.

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[1] See Appendix 8.

[2] "Film vs. Tape," Photomethods, April, 1977, p. 31.

As it turned out, the father of one of the troupe members, Michael Murphy, a professional cinematographer in Los Angeles, volunteered to film events of the show. Arrangements were made for him to film the show in Helena.

During the twenty days in June that the writer spent in Roundup with the show, agreements were made about the content and form of the proposed film and a shooting schedule was arranged. Since large crowds were expected in Great Falls, and because the theater performances would be more likely to be polished by then, that city was chosen as an obvious place to begin filming and videotaping. Kalispell, Missoula, and Helena also were chosen as good locations because of their proximity and because of the commitments of the cinematographers, Wolfe and Murphy.

The theater material was videotaped in Roundup to provide a reference from which to arrange a filming schedule, since at that time no complete scripts of the theater skits had been written.

The total length of the theater material was almost an hour and a half, and the video-tapes proved helpful in making decisions about what scenes the cameramen should cover in Missoula and Helena.

During the latter part of August, all the original film footage and video-tapes were viewed and a log of the material was made. From this, decisions were made about what materials might still be needed. Although some troupe members were not pleased with the late decision to make the final performance in Butte, it was provident from the film production standpoint as it was one last opportunity to obtain material.

During the fall of 1977, the nearly eight hours of video-tapes were edited to one hour. This was done on the video-tape editing

facilities maintained by Instructional Materials Service in its editing laboratory in the basement of the University of Montana library.

The editing technique used was limited by the equipment available. It consisted of transferring the material to be edited from the original half-hour reels onto unrecorded blank reels with the intention of then transferring the edited tapes onto a one-hour master tape. In the process of editing from the Sony AVC 3650 machine to the Sony AVC 8650, many edits were unstable and caused an unsatisfactory rolling of the image on the screen.

This is not an uncommon problem with this equipment. In an attempt to improve the quality of the program, samples of both the original and edited video-tapes were put through a time-base-corrector and transferred to three-quarter inch video-tape cassettes. The transfers were done at Montana Media using television station KPAX's time-base-corrector.

The experiments with the transferring process proved to be unsatisfactory. The edits in question were not stabilized and the transfer process resulted in an unsteady picture characterized by the presence of video-noise-patterns on the screen.

For the purpose of producing the video-tape submitted with this paper, it was necessary to make a video-tape copy of the edited 16mm color film.

Kodak ECO 7252 was the film stock chosen for the project because of the richness of its color and its suitability for having prints made from it.

The film was purchased from Lightsmith, a film processing laboratory in Missoula. A local film processor was chosen to maintain

close contact in the event special developing requirements were needed.

Filming of the show's activities in Roundup, which consisted of theater rehearsals, constructing displays and exhibits, and participation in the Roundup Fourth of July parade, was done with a spring-wound 16mm Bolex equipped with an Angenieux zoom lens. The camera usually was mounted on a tripod and proved adequate for filming short sequences.

In Great Falls, Kalispell, Missoula, and Butte, a Canon Scoopic 16 was used. This camera filmed almost half of the film footage used in the final edited film.

A CP-16 camera in combination with a Sony TC 153 cassette recorder equipped with a crystal sync device was used by cameraman Swain Wolfe to film almost the entire evening theater performance in Missoula.

Michael Murphy used an Eclair ACL in combination with a five-inch reel-to-reel Stellavox tape recorder to film the afternoon matinee performance, an interview with the show's musicians, and the solar panel workshop in Helena.

Ninety percent of the filming was done with hand-held cameras to give the operator mobility to follow stage action and to get into the more intimate situations that documentary filming requires. By the end of the summer tour, the NWES troupe members were quite used to having cameras pointed at them. This proved to be valuable during interview segments in which the troupe members appear casual though in some cases a camera was only a few feet from them.

David Lewis and Michael Gall, both of Missoula, assisted with sound recording in Butte and Missoula.

The process of editing the film followed standard procedures.

During the fall of 1977, all the original film footage was viewed and cataloged. The original sound recordings were listened to in their entirety several times and this material was also cataloged. Determinations were made about the quality of both sound and film image and the material found acceptable to appear in the edited film was selected and separated from the bulk of original materials.

Five thousand feet of original film was selected and black-and-white workprints were made from it. The decision to use black-and-white workprints instead of color workprints was strictly an economic decision based on the fact that the black-and-white workprints were less expensive. The workprints were printed by Lightsmith. Later additional workprints were obtained from Teknifilm, a cinematography laboratory in Portland.

Three hours of material from the original ten hours of sound recordings were selected and transferred to 16mm sprocketed magnetic sound film.

Editing of the black-and-white workprint was done on a Showchron flatbed editing table at the Moving Picture Company in Portland, Oregon. The first step in editing the workprint was to match sound sync picture footage to the corresponding 16mm magnetic sound film. This footage consisted of theater performances, interviews with troupe members, and the "hit and run theater" sequence which took place at Albertson's supermarket in Missoula.

The footage filmed in Helena using the Eclair ACL camera and Stellavox sound recorder had an easily identifiable light flash on the film which corresponded with the "sync beep" on the sound film. Once the light flash on the film and the beep on the sound film were aligned,

the dialogue appeared in synchronization.

The footage filmed in Missoula using the CP 16 camera and Sony cassette recorder had only infrequent light flashes on the film and there were no corresponding beeps on the sound film. In order to synchronize this material, a common reference point between picture and sound had to be established. The barker's cane striking the stage, the stamping of a foot, or quick hand motions were devices used to establish a common point of synchronization.

Once the picture image and the corresponding sound were synchronized, a series of marks were added. These marks consisted of letters or numbers applied on the picture workprint with a grease pencil and corresponding marks placed on the base side of the magnetic sound film with a water-resistant felt-tip marking pen. Synchronization marks were placed near the beginning and end of each scene. A well-marked workprint facilitated cutting the film for inserts and out-takes.

Sequences in the film which did not use lip synchronization were assembled in an order that related to the accompanying sound track. If the voice of a narrator was heard on the sound track, the corresponding film image related to the content of the narration.

Each of the sequences that appeared in the film were edited individually, timed in minutes and seconds, cataloged according to length and content, and placed on a shelf. As the edited sequences were compiled, relationships between them became apparent. For example, during the sequence of the musician's interview, there was a discussion about composing songs for the theater performance which evolved into discussing one particular song. A lap-dissolve (the fading out of one scene simultaneously with the fading in of another scene) was used as a

transitional device from the discussion of the song-writing process to the actual performance of the song.

Between sequences in which there was no such direct relationship the device of momentarily fading to black between sequences was used. Straight cuts from one scene to the next were used within sequences.

The desired optical effects did not actually appear on the workprint but were indicated by a system of markings. These markings conformed to recommendations contained in the handbook, Recommended Standards and Procedures for Motion Picture Laboratory Services, printed and distributed by the Association of Cinema Laboratories.

The initial editing of the workprint in Portland during February, 1978, took 21 days, working an average of 12 hours a day. Two weeks more of editing time were required to finish the workprint. This was done at Bitterroot Films in Missoula during March, again using a Showchron flatbed editing table.

The rental of editing equipment was not included in the proposed budget and was an additional expense assumed by AERO with the understanding that any revenue earned from the rental or sale of the film would be used to pay expenses incurred in excess of the $5,500 appropriated for film production expenses from the Bill 86 grant.

All of the music used in the sound track of the film was played and sung by members of the NWES and was recorded during actual performances. The musical numbers in the theater performances were original pieces written specifically for the show, or in some cases traditional songs adapted to fit energy themes.

Various members of the troupe performed original and standard songs in front of the stage before the start of theater performances,

and often an informal jam session took place after the evening performance. These were the sources of the background music that accompanied the narration in the film.

After the workprint and corresponding sound tracks were edited, the next step was to make the original footage conform to the edited workprint, which served as the model of how the film would look. Using the edge-numbers which appear on the original footage (and subsequently on the workprint) as a guide, scenes were taken from the original footage and assembled on alternating A and B picture rolls. The technique of alternating scenes on A and B rolls produced an invisible splice when printed and also allowed for the introduction of optical effects such as fading from one scene to another.

During the process of assembling the A and B picture rolls, several short scenes that were originally filmed to be intercut with continuous scenes were found to be one or two frames short of the scenes in the corresponding workprint. This was, at first, thought to be the result of the splicing process.

A guillotine-type film splicer which cut on the frame line and joined the cut ends with transparent splicing tape had been used to splice the workprint. A Meyer-Hancock hot-splicer was used to splice the A and B picture rolls. This type of splicer cut into the frame preceding the beginning of the scene. The cut was then scraped to remove the film emulsion and the ends of film to be joined were coated with film cement and held in place in the hot-splicer while they adhered.

The discrepancy between the original and workprint scenes was attributed to the frames lost by using the hot-splicing method. Further

examination revealed what proved to be the worst mistake in the project. The operator of the printing machine at Lightsmith, in printing the workprints, had incorrectly threaded the film in the machine and the edge-numbers which were printed separately from the picture image, appeared on the workprint one frame advanced from where they occurred on the original footage. When the error was discovered, the A and B picture-rolling was already three-quarters completed.

The result of the error was that although the sound tracks matched the workprint, the synchronization was one frame off from the A and B original footage. Another complication was that workprints also had been made by another laboratory, Teknifilm in Portland, Oregon, and were cut in with the defective workprint.

After the error was discovered, the remaining footage was A and B rolled, allowing for the one frame error. Several days of work were required to go through the A and B rolls and move sections forward or backward one frame to accomplish synchronization. Sometimes it was necessary to remove frames from the sound tracks, which resulted in taking frames out of the silence between sentences or in some cases removing frames from the beginning or end of scenes.

After the A and B picture rolls were altered to conform to the A and B sound tracks and picture and sound were in synchronization, the black-and-white workprint had to be altered to conform to the A and B picture rolls. The edited workprint accompanied the A and B picture rolls to the printing laboratory and conformed exactly to the A and B picture rolls.

After the workprint, A and B picture rolls, and A and B sound tracks were all in synchronization, it was necessary then to fill out

a new set of cue sheets containing instructions for the sound mix and another set of log sheets which contained the printing instructions.

A week of frustrating work to correct the error in the printing of the edge-numbers resulted in the affirmation of an important lesson in filmmaking: Always check the results of any laboratory work to make sure it conforms exactly to the intended purpose.

After the film and sound materials were sent to the printing laboratory, there was one more mishap. As the film was being threaded into the ultra-sonic cleaning machine at the printing laboratory, several of the splices separated. The producer authorized a laboratory technician to go through the film and re-splice any splices that looked as if they might separate in the process of going through the film-cleaning machine.

Six hours of editing time was necessary to re-splice the A and B rolls. A careful examination of the hot-splicer used and the splicing technique of the producer revealed no irregularities. The only other variable in the splicing process was the quality of the film cement. One has no guarantee of the quality of the cement when it is purchased in a local photography store.

After viewing the answer print, the producer was pleased with the timing of the scenes. Because the show was filmed in several different locations, under varying lighting conditions, and with different cameras, there were discrepancies in the exposure of scenes that had been placed together. The timer's job at the printing laboratory was to evaluate the scenes along with the instructions of the producer and determine the proper exposure to be given each scene. Scenes in which the original footage seemed either over- or under-exposed were well

balanced in the first answer print.

The troup members' credits which appear at the end of the film were not satisfactory. Color slides of individual troup members were photographed during the summer tour. The slides were projected on a white card and filmed with a 16mm camera. In order to accomplish a satisfactory exposure, Ektachrome Video News Film 7240 rated at A.S.A. 125 was used instead of the slower ECO stock (A.S.A. 16) used in the rest of the film. The Video News Film, although it produced a better exposure than the ECO in this situation, was characterized by a great deal of contrast which was not flattering to the subjects.

Although the expenses of the film exceeded the proposed budget,[3] the NWES and AERO have agreed to assume the cost of an inter-negative from which release prints can be made.

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[3]See Appendix 9 for itemized expenses of first answer print.

CHAPTER IV

SUMMARY

> We are often asked what the response has been to the New Western Energy Show. Has the Show been successful? What kind of followup has there been? What have been the results of two summers' touring around Montana?
>
> It's difficult to assess the response to our Show. We haven't handed out questionnaires or interviewed people. We haven't recorded remarks we've heard. We don't know when the seed of an idea has been sown or when a person has learned something new. We've gotten excellent reviews and stories in various local media during each visit, but again we can't assess the number of people that are 'reached' by this exposure.[1]

Although no quantitative analysis has been conducted to determine the effectiveness of the New Western Energy Show, its effects are noticeable. Most easily observed are the effects the NWES has had on pupils in the schools visited.

In Butte the show played to a matinee audience of more than 800 school children. During April and May, 1977, the show visited 13 Missoula elementary schools. One need only observe the excitement and interest of the children when a small group of NWES troupe members visited the classrooms to determine how effectively the show communicated its message.

Many students and teachers have written letters to the NWES asking that the show be integrated into the regular primary education curriculum in the state.

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[1] "The Word Spreads Fast," AERO Sun-Times, October/November, 1977, p. 19.

The NWES had effects on the schools in other ways. In Havre, the solar water-heating collectors constructed during a workshop by the NWES eventually were installed in the Devlin Grade School by the District 4 Human Resources and Development Council. A sixth-grade class monitored the performance of the system during class days.

> In all, 55 of science teacher Barry Wilcox's students participated directly in this ongoing demonstration, but more than that, every student in the school has seen the system working and had it explained by the science students. A most effective story of solar energy education.[2]

Countless individuals have been inspired by a visit to the NWES and have incorporated some form of renewable energy into their lives. AERO and the NWES have received several letters attesting to this fact.

Having spent many weeks on location with the NWES during the summer of 1977 and having had the opportunity to talk with many of the hundreds of persons who visited the show, I am confident that the basically simple and straightforward message of the NWES is extremely effective. Perhaps the practices of energy conservation and future legislation in Montana will reflect the philosophies of the NWES.

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[2]Ibid., p. 20.

APPENDICES

APPENDIX 1

FINAL REPORT ON THE NEW WESTERN ENERGY SHOW FOR THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

FINAL REPORT
ON THE NEW WESTERN ENERGY SHOW
FOR THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

by Wilbur Wood
Coordinator of NWES

Note: The AERO Sun-Times of August-September, 1976, has an eight-page report on the New Western Energy Show: exhibits, workshops, the theater, a glimpse of the daily life of the troupe, how the show happened, future plans. There is no reason for me to reiterate what Kye Cochran has said so well in this newsletter, a copy of which is enclosed. What I intend to do in this brief report is to draw some general conclusions out of the experience. The conclusions are my own, not AERO's. I hope they prove helpful.

Our society is dominated by a finite energy conspiracy. Whether this conspiracy is conscious or unconscious, I don't know, but we all participate in it. To go to the root of the word: con-spire means to breath together. What kind of energy do we--as a society--breathe in? What do we breathe out?

Mostly we breathe in coal--oil--natural gas: the fossil fuels that are in finite supply. To an increasing extent we breathe in the energy generated by splitting the nucleii of radioactive ores, which are also in finite supply. We also breathe in the sun, and the wind, and the forests--and these are not finite but (if we use them right) renewable energy resources. However, we hardly think of the sun and the wind, of renewable energy sources. What makes our society go, for now, are the finite energy sources.

So whoever controls the finite energy resources controls this society. Controls, as a corollary, the media of communication of this society. We don't see commercials for wind power on t.v. We don't read ads extolling solar energy in Time magazine.

And so it is that people who wish to talk about the wind and the sun as viable sources of energy must turn to other media--or rather, must create their own.

The form--the archetype--that the New Western Energy Show fits into is the travelling roadshow. There are many versions of this archetype. Gypsies. The circus. Chatauquas. And--of course--the "medicine show."

We played off the medicine show form. Had a "barker" to draw in the people--promising great and enlightening entertainment--then slyly slipping into a sales pitch for "Dr. MacFarland's Sweet & Sour Elixir of the Gods"...but she was interrupted by the rest of the troupe coming out and admonishing her that this wasn't that kind of medicine show... and the barker would ruefully agree...and the Show would begin. The audience surrounded by renewable energy devices and display panels, watching skits performed on a stage that is one fold-out wall of a brightly painted circus wagon. This was--is--our medium. (con'd)

Our medium. But after our fourth town, as we headed over the mountains to northwestern Montana, we noticed that E.R.D.A. (the federal Energy Resources Development Administration) was pulling in to Great Falls--right in our wake--with TWO trailers and a big electrified energy show of its own.

Again, I don't know if this was conscious or not. Maybe it was just "coincidence." But I take it as an example of the finite energy conspiracy at work--because the E.R.D.A. exhibit, from reports, concentrated on fossil fuels and nuclear energy as the immediate "solutions" to our energy needs.

The lesson in this is that anyone who wishes to buck the conspiracy must constantly create new forms, new media of communication. The old forms are rapidly co-opted by the conspiracy.

E.R.D.A. pulled into Great Falls, into a fair there. The New Western Energy Show never did play Great Falls--or Billings--or Missoula. The largest city in Montana we appeared in was Helena. Next largest, Bozeman. We played mostly in small towns--populations varying from 900 or 1,000 (Circle, Bigfork, Arlee, Lame Deer) to around 3,000 (Wolf Point, Chouteau, Hamilton, Roundup, Red Lodge, Forsyth). There was Havre, at around 10,000; Bozeman, around 18 or 20,000; Helena, close to 30,000.

THE OBVIOUS

The obvious question: why did we choose small towns?

The answer--really there are several answers: (1) Small towns tend to be starved for any kind of entertainment--we felt we would not be competing with other events, and we hoped we would be providing a genuine service, filling a need; (2) It's a lot easier to get permission to use public facilities in small towns, rent free, no--or few--strings attached. Money, and ease of arrangement, was of course a big factor in our low-budget enterprise; (3) People in bigger cities are less likely to be able to put the ideas the Show was promoting to immediate use; people in small towns tend to have more of a land base and fewer restrictions (such as zoning laws, etc.) and we hoped to stir rural Montanans into implementing renewable energy concepts tangibly.

Perhaps another answer is that I live in a small town--Roundup--and I like the relaxed atmosphere in small towns.

So how did it work out? I'll run through a quick inventory.

Roundup--where we put the Show together and did a preview of it--we had small but interested audiences, partially due to the fact that we were trying to finish the Show--the skits, the exhibits, all the myriad details--more than we were trying to attract great numbers of people to our first performances. We didn't do much publicity.

Circle--we were still finishing the Show--painting borders around display panels, affixing wheels to the information booth, etc.--so we unfortunately did not pay much attention to those folks who did wander into our circle of exhibits; we had very small audiences--though one night performance drew about 40 people. We did not make ourselves very visible, even in such a small town as Circle (900 population).

Wolf Point--a little larger town, and we were set up in a park in the center of town in the midst of the Wolf Point Wild Horse Stampede celebrations. The parade ended right at our park. The rodeo drew people from miles around. We had fine large crowds. We felt good here.

Havre--despite the size of the town, our location--at the fairgrounds a couple miles outside town--was not as favorable as in Wolf Point; and despite good radio and newspaper coverage, public response was not overwhelming.

Chouteau--we didn't know a Little League tournament would be going on in the baseball fields next to the park where we sere set up, but we were glad it was because this gave us a lot of flow-through traffic. But even if there had not been a tournament, we would've gotten good response from the local people. Very large crowds, very enthusiastic.

Bigfork--really we drew folks from all around the Flathead Valley, which was our intention. We were here longer than anywhere else--5 days as opposed to our usual 3 days--and the crowds built nicely during the week.

Arlee--drawing from the Missoula area, we had big crowds and a lot of interest.

Hamilton--very well organized local participation--from craftspeople, people selling insulation, people who had built solar dehydrators; and general sponsorship by a local foundation--made this one of our best stops. Large crowds, and very mixed...old people and young people, Mormons and hippies...this was true throughout our tour, but especially noticeable here.

Helena--biggest town, biggest gate receipts, and best audiences.

Bozeman--next biggest town, very good gate, very good audiences.

Red Lodge--hordes of people attending the Festival of Nations, but most of them do not seem to be interested in our Show. Puzzling. We learned that many local folks, who otherwise would've showed up for the NWES, tend to stay away from the influx of people during the Festival. And we learned that the tourist crowd is probably not our crowd. Still, by the last day, we felt we had made some headway.

Forsyth--at the Rosebud County Fair; next to a very loud carnival, stuck off in a corner. Poor attendance. Probably the low point of the tour. People in this coal country town not hostile, just seemingly apathetic.

Lame Deer--on the Northern Cheyenne reservation. Many folks were out of town attending Crow Fair. And one day a forest fire drew away more potential audience. Small crowds but a very good feeling. Very positive. A place we'd like to try again at a different time.

So what conclusions can we draw from this tour? We did well in the bigger towns, no question about it. Havre was the exception, but the timing there may not have been good: Tuesday and Wednesday--no "event" drawing people to the fairgrounds outside town. In some of the smaller towns we did fine--I think right away of Wolf Point and Chouteau--and it helped to have other events drawing people to those two places. But the event of Festival of Nations didn't seem to help too much in Red Lodge.

We tried as many different situations as possible--to get a feel of who our audience is and how we could best reach it.

We were happy that the Show attracted all different kinds of people. Energy is an issue that cuts across many petty distinctions of class and lifestyle.

(cont'd)

I don't think we can generalize much more than I already have about the towns we visited. They were so different--in such different locales, with such varying populations. And we hit them at such different times. One problem with Circle is that it was the middle of haying, and a lot of the rural folks just could not make it into town during the day. One advantage of Bigfork is that it was a resort area, and people have leisure time to spend taking in events such as ours.

In the future we are going to continue to play in some small towns, but we also plan to move to bigger towns like Missoula and Billings.

And we are going to spend more time in each town.

This last summer's tour was a killer. We'd spend 3 days in a place, then have to tear down the Show, spend a day travelling to the next site, set up, 3 days, tear down, a day travel, on to the next town... it was too hard on the troupe members.

We think 5 days in a town is good. Bigfork showed that. And then a couple days to travel and rest before we set up in a town for another 5 days.

Three days is enough to get together interested people, and put together (as we did in 9 of the towns) a solar water heater. But this doesn't allow us time to get the device <u>installed</u>. Five days may give us enough time not only to build but also to install the device.

Our object was to take our workshops--which we'd been conducting in Billings--to the people around the state. To take our workshops and our informal displays and the actual working devices, so as to counteract the "conspiracy's" propaganda that solar energy or wind power is 20, 30, 100 years away. Our point was--and is--that the technology to tune into clean renewable energy is here now. And we hoped to make clear that it is an accessible technology, accessible to people working in their backyards, in their garages and workshops.

And we drew many tinkerers and inventors and craftspeople out of their niches and cubbyholes.

But we wished to attract a broader audience than tinkerers. So this was the reason that we decided from the beginning that no only would the Show have a technical component but also it would have theater.

In assembling the Show we never had quite enough time to integrate the two aspects of the Show--technical and theater--the way we had hoped. There was simply too much to do. The technical people were swamped trying to assemble the exhibits; the theater people had plenty on their hands creating and rehearsing and re-creating and reworking and rehearsing the original theater material that we developed in one amazing month. And we ended up with "technical people" and "theater people" with little overlap. Both components realized the value of the other: the technical information was the heart of the Show, but the theater served as the Show's focal point.

In the future we plan to allow more time for theater and technical aspects--and personnel--to integrate and exchange.

(cont'd)

We were able to do this Show so cheaply because of good will and cooperation from--first of all, the troupe members themselves--but more than that, from people all over the state.

One person, when he heard about the Show, immediately donated all the wheat we would need to bake bread and cookies for the entire tour.

In Roundup, the county commissioners donated the county buildings, rent free, for our use in physically assembling the exhibits. And another person, who owns a now-vacant rest home, donated this large building rent free, as a 'dormitory' for the 13 troupe members who had descended upon the town.

(I must mention that the maxim "There's no such thing as a free lunch" applies here, however. To get use of the county buildings, we had to take out expensive liability insurance. To get use of the rest home as a dorm, we had to fix the plumbing, which was quite persistently leaky. And we paid for electricity and water.)

In our tour we covered 2000 miles, went to 13 towns (including Roundup) in every major environmental region of Montana. And we only scratched the surface.

We've been invited to bring our Show to points as far away as California and Pennsylvania. But we feel our responsibility is to develop our local and regional "constituency."

Montana is a place where the finite energy conspiracy can begin to be turned around. Turned into a renewable energy conspiracy.

Let California and Pennsylvania mount their own energy shows. (We may help by training Californians and Pennsylvanians to do just this.)

We plunged into this project without any guarantee of funding. We had backers--individuals who loaned us money--who "underwrote" the Show till we could get it funded--who donated money and various other things--but we had no assurance that the Show would eventually be funded. We only had a strong belief that what we were doing was and is necessary, that the timing was right, is right, that the people are ready.

We are most grateful that funding did come through, from Bill 86.

We thank the people of Montana.

W. W.

December 7, 1976

APPENDIX 2

REQUEST FOR GENERAL SUPPORT FUNDS

REQUEST
for
General Support Funds

ALTERNATIVE ENERGY RESOURCES ORGANIZATION
(A.E.R.O.)

CONTENTS

INTRODUCTION

AERO--the Alternative Energy Resources Organization--came into being because a large number of people in Montana and all over the Northern Plains and Rockies region became sensitized, in the early 1970's, to the problems attending massive coal development in our region, and to energy use and abuse all over the planet.

Many of us who are members of AERO look around and observe that abundant clean renewable energy resources are at our fingertips. In our region, the wind and the sun are especially evident east of the Rockies; west of the Rockies, flowing water and the forests--if managed with care--are the main renewable resources.

Some of us have done extensive research and have discovered that the technologies necessary for a transition to these and other renewable resources are not "exotic," are not "thirty to fifty years in the future," as we have been told, but are here today. They are simply ignored.

We also observe the waste around us: not just our current extravagant overconsumption of the fossil fuels, but wasted land, water and air--and wasted humanity, hanging on in the cities with temporary jobs or welfare checks or petty crime, or moving between suburbs and cities, pushing paper from file to file to wastebasket. Meanwhile, the real work of replanting and renewing the Earth keeps being put off.

Too much is put off, for future generations to deal with: ruined forests, wind-eroded prairies, polluted streams, control of plutonium and other radioactive products of nuclear fission, which somehow must be isolated from the biosphere for hundreds, thousands, even hundreds of thousands of years. So much has been put off that we feel it urgent to get on with the real work at once.

In June of 1974 we formed AERO, a nonprofit, citizens educational corporation. Our aims: to promote energy conservation and the intelligent, widespread use of renewable energy resources.

We've had a great deal of success--people are ready for the message we bring. But much work remains to be done.

What follows is a report, a projection, and a request. We report on our accomplishments and on the unique role we have defined for ourselves during our first three years; we include how much it all has cost, and from what sources AERO has received support. We project AERO's activities for the next year (roughly, from fall '77 to fall '78) with estimated costs of operation. And finally, we request funding to help support AERO's continued existence.

August, 1977

AERO'S HISTORY

AERO began its activities in May, 1974, in a more formalized and intensified continuation of the renewable-energy-oriented activities of Kye Cochran, then a staff member of the Northern Plains Resource Council (an agriculturally based citizens membership group concerned about coal development in the Northern Plains region). AERO's "office" was then a corner of the NPRC office. From there, Kye and several volunteers conducted a renewable energy survey of Montana's legislative candidates; provided information to a state senator who was promoting the use of state taxes to aid in research and development of renewable energy sources; produced the first issues of the AERO Sun-Times, our monthly newsletter; recruited new members; and worked at fund-raising for the organization.

In January of 1975, AERO incorporated as a nonprofit organization, and with the first year's funds from a two-year foundation grant we set up an office. We began a thorough analysis of current literature, established information contacts, and assembled a library and information center.

That year saw AERO adding another permanent staff member (besides Kye) and several part-time consultants. We began giving presentations (slideshows, talks) for various groups; we testified on renewable energy matters before state legislative committees and state and federal agencies. And we conducted a "hands-on" and informational wind energy workshop in November, 1975: a weekend during which participants built a small wind-generator, and wind-energy experts from around the country talked and gave slideshows.

AERO's major project in 1976 was the New Western Energy Show (NWES). A unique combination of technology and theater, information and entertainment, this travelling exhibit toured 13 towns--and reached nearly 10,000 people--in Montana during July and August (see Appendix # 1). NWES was funded mainly with money from the Montana Alternative Renewable Energy Research, Development and Demonstration Act of 1975, which sets aside 2½% of Montana's coal tax for renewable energy projects.

Other AERO projects in 1976 included: a very successful hands-on solar energy workshop in March (a prototype for nine subsequent workshops conducted by NWES) in which participants attended slideshows and lectures and built two 4-foot by 8-foot solar water heating panels, which were installed later on a home in Billings; and the establishment of "AERO-West," an affiliate organization in Missoula, which offered a renewable energy education course at the University of Montana and began assembling its own library of energy-related books and periodicals.

We increased our slideshows, lectures, and other information dissemination activities. In our newsletter--though we continued to report on renewable energy developments around the nation and the planet--we began to focus on the upsurge of action in our own Northern Plains and Rockies region.

Early in 1977, several Missoula members of the NWES troupe created an innovative school program consisting of an assembly presentation (patterned after the NWES theater show) plus classroom activities (including an "Energy Game," the goal of which was to reach the Sun). AERO raised funds for this highly successful program --called "Springtour"--through an auction/entertainment/dance event. Springtour visited most of the elementary schools in Missoula in April and May, and AERO expects to continue school-related programs in the fall. (See Appendix # 2.)

The New Western Energy Show, updated and improved (see Appendix # 3), is on the road again as of July 1, 1977. Again the state has agreed to fund the Show with money from its renewable energy grant program.

AERO'S ROLE

Montana has state and federal agencies which deal with renewable energy matters; it has the grants program that funds renewable energy projects; it has the National Center for Appropriate Technology (in Butte); and it has environmental and civic groups interested in renewable energies: why, then, does this region need a citizens' organization such as AERO?

The people who direct, administer, work for, and belong to our organization have become involved because we share a purpose: to further renewable energy development and energy conservation. With this basically simple purpose, and with AERO's particular structure, we find we can initiate and carry out projects more easily than can either individuals or more highly structured organizations. The reasons:

* We can (and must) respond directly to the wishes, needs, suggestions, criticisms of our membership, which includes people of all ages, backgrounds, experiences and professions. We have found that other organizations in the state have difficulty "reading the pulse" of the people and acting accordingly.

* Responding quickly to new developments, we can take action (create a new project, update an information pamphlet, hold a conference, etc.) speedily, without having to deal with red tape or hassle with superiors who are out of touch. Agreement among our Board of Directors is our only prerequisite to action.

* Because we are independent, and our area of interest and expertise is well known, other groups tend to consult us when matters arise concerning renewable energy or energy conservation, and often we are able to perform a "networking" function for them. One example: When the Montana Energy Advisory Council received money from the Federal Energy Administration in late 1976 to compile an energy conservation plan for Montana, the agency's staff contacted AERO. We put MEAC in touch with a renewable energy legislative expert in Denver and an energy consulting group in Seattle. These people coordinated with the Montana Energy and MHD Research and Development Institute in Butte to produce, in record time, a landmark study and plan stressing conservation and renewable energy development.

Again because AERO is independent, we are able to be very flexible in terms of:

(1) Hiring practices. We don't have to follow possibly outdated or inapplicable guidelines, but can hire people based on our own experience and judgment.

(2) Actions. We can speedily terminate a project that is not working, or change a project in response to new suggestions.

(3) Doing more with less. All our members (and many other people) have personal interest in what we are trying to accomplish, and we benefit substantially from this interest by way of volunteer work, donations (of materials, food, money, etc.), contacts, and general support. An example: The 1976 NWES eventually was funded by the state renewable energy grants program, but because of red tape this funding did not come through until five months after the Show had ended its summer tour; we had built and run the Show, at approximately $30,000 expense, on loans and gifts from interested people who thought it should be done.

AERO'S INCOME AND COSTS

January 1975-May 1977

INCOME	Private Foundations	Public Grants	Membership	Donations	Fund-raising Events	TOTAL
1975	$25,000.00		$1,677.00	$6,498.00		$33,175.90
1976	$31,450.00	$22,453.07	$2,427.00	$8,608.67		$64,938.74
1977 (Jan.-May)			$1,249.00	$ 632.00	$2,248.35	$ 4,129.35
					TOTAL INCOME.....	$102,243.99

COSTS	Salaries, Consulting	Library	Printing	Postage	Office	Travel	Projects	NWES (vehicles, devices, insurance, etc.)	TOTAL
1975	$ 8,631.59	$372.72	$2,735.11	$574.47	$1727.84	$474.25	$4283.17[1]		$18,799.15
1976	$10,790.42	$302.70	$3,179.53	$464.57	$2121.72	$424.85	$2834.89[2]		$20,118.68
NWES '76	$ 9,455.73		$ 934.58 (includes postage)		$404.73	$2755.20	$ 208.66[3]	$16,242.22	$30,001.12
1977 (Jan.-May)	$ 4,325.40	$134.05	$1,754.75	$276.88	$657.20	$142.44	$ 816.63[4] $5884.34[5]	$ 4.325.00	$18,316.69
								TOTAL COSTS.....	$87,235.64

Footnotes, Projects

1. Wind Conference, Gemini Synchronous Inverter, Film/Fair, Low Cost Housing Book
2. NWES Solar Conference, Video/Film, Photos/Slides
3. Theater
4. Video/Slides/Scripts/Photos, NWES, AERO-West
5. Springtour educational program, Missoula elementary schools

PROJECTION OF AERO'S ACTIVITIES

Two years ago, AERO's single room in the Stapleton Building in downtown Billings was adequate. Now it would be hopelessly crowded with busy and curious people. We have expanded to three rooms--an office, a library, a study and consultation room--because people are ready to use these expanded facilities.

A year and a half ago, AERO-West did not exist, except as an idea in the minds of a handful of people who met to discuss renewable energy in the back room of a leather shop. Now AERO-West has office and library space in Horizon House, a recycled dwelling in downtown Missoula devoted to community activities.

One year ago--early summer, 1976--the New Western Energy Show was a colorful fantasy becoming real. Now, besides the exhibits, devices, theater scripts and props, vehicles and "circus wagon," there are more than twenty people--past and present troupe members--experienced in the technical and informational aspects of renewable energy. Many former troupe members, though not with NWES-1977, are at work on other renewable energy projects around the state and nation.

As we project our operations for our fourth year, we see they divide into four parts:

(1) The Billings office. Headquarters of AERO; membership and research files; energy library and study room; scheduling of lectures, slideshows, workshops, and other public presentations; bookselling; writing, publishing and media center. Besides one full-time and several part-time staffers, we seek to add a full-time information person, to deal with people who come in the door with questions, to work with print and broadcast media, to research and write for our newsletter. Continuing the newsletter, we will also begin a series of pamphlets on energy-related topics, mostly specific to conditions in our Northern Plains and Rockies region.

(2) AERO-West in Missoula. Library, research and workshop center specializing in west-of-the-Rockies resources; bookselling, lectures, exhibits; many of AERO's theater, school, and media programs emanate from Missoula. AERO-West uses Horizon House virtually rent-free (plans are progressing under a separate grant proposal to retrofit this house to renewable energy systems), but certain office expenses--phone, supplies, etc.--need to be budgeted for, as well as two salaries.

(3) New Western Energy Show. The Show presently is centered in the Roundup-Billings area, when not on summer tour; AERO is exploring several promising sites for a year-round center for the Show. There, staff people can update exhibits and maintain vehicles and devices (bus, truck and trailer, pickup; various wind, solar, water, wood, bicycle-power, and other devices) and schedule tours, displays, workshops, and seminars on a year-round basis. Two full-time salaried positions are necessary to support this important part of AERO's operations.

(4) AERO Design and Construction Team. The newest phase of our program and a sorely needed one, judging from the barrage of requests AERO receives from people interested in building solar homes, comparing solar heating equipment, installing wind-power systems, integrating conventional and renewable energy systems. The Team is comprised of AERO and NWES technical personnel, who are available (on a fee or contract basis) as design consultants, workshop supervisors, builders, contractors, or retrofitters. We anticipate that the Team will rapidly become self-supporting, but to set up the operations we are budgeting for two salaried positions.

All four parts of our operations interrelate strongly. For example, the Design and Construction Team has access to the vehicles and demonstration devices of the New Western Energy Show, and access to the research and media resources at AERO and AERO-West.

Another example: AERO plans to continue educational programs, working with the public school system, building on our experience with "Springtour 1977" in Missoula. AERO-West and New Western Energy Show personnel will work together developing and presenting theater, classroom, workshop, and curricular material through the next year.

A final example: AERO has been developing a library of media materials (as well as books) and has renewable energy slideshows, videotapes, films, tape recordings. Much of the actual production and editing work on these materials has been and will be done out of AERO-West, though final disbursement of these materials is handled out of the Billings AERO headquarters.

OUR REQUEST FOR SUPPORT

How does AERO raise money? Through benefits, auctions, workshops, donations, bookselling, and yearly membership fees. We plan to begin charging for consulting services, and for pamphlets and booklets we write and publish ourselves. But AERO's main source of funding is grants.

We are presenting the following "maintenance budget." Special AERO projects (such as another summer tour of NWES in 1978, or an educational program in the public schools, or the retrofitting of Horizon House) will be funded separately. This maintenance budget will enable staff personnel to work on obtaining support for these various special projects, as well as to continue our ongoing educational activities.

Projected AERO Budget
Fall 1977-Fall 1978

	wages (salaries & consulting)	office maintenance, travel, supplies	special projects ("seed money")
(1) AERO Billings Total $29,500	$17,000 (2 full-time, several part-time)	$6,500 (rent, supplies, etc. including newsletter)	$6,000 (special publications, media, conferences, etc.)
(2) AERO-West Total $13,500	$10,000 (2 full-time, some consulting)	$1,500	$2,000
(3) New Western Energy Show Total $14,500	$10,000 (2 full-time, some consulting)	$2,500 (supplies & lease or rent of center)	$2,000
(4) Design & Construction Team Total $12,500	$10,000 (2 full-time plus consulting)	$1,500	$1,000

TOTAL AERO MAINTENANCE BUDGET.....$70,000

We invite foundations, private groups, and individuals interested in supporting all or part of this total program to contact Kye Cochran at AERO, 435 Stapleton Building, Billings, Montana 59101. Telephone: 406/259-1958. We can make available more detailed information plus documentary materials (slides, photos, videotapes, newspaper clippings, and endorsements) on any particular aspect of AERO's operations.

APPENDIX 3

LETTER FROM WILBUR WOOD

Saturday 21 Jan 78

Albert: I am going to attempt to answer your questions regarding the New Western Energy Show fairly compactly and systematically. I am also thinking of David and Robin as I do this because they have been asked to write an article for RAIN magazine on how to put together a travelling energy show (so I will be sending a carbon copy of this to them). I'm not sure when I will be showing up in Missoula because I've not checked train schedules yet, but I think it'll be Tuesday or Wednesday, the 24th or 25th. At that time I'll bring a copy of some clippings of the first-year NWES, and some other materials that you may want to study, particularly in relation to your Masters thesis--but also perhaps for the scripts of the videotape and the movie.

WHEN WAS THE IDEA OF NWES DECIDED UPON?

Merging a pleasant fantasy (travelling Montana in the summers with a caravan of musicians, craftspeople, dancers & actors, 'New Age' media of various sorts) and practical need (to get specific, reliable information on renewable energy systems & technologies & attitudes to the people of this spread-out, sparsely populated region). Elizabeth & Wilbur had been talking the fantasy for years; as 'coal development' made everybody in Montana more energy-conscious, and AERO emerged to promote alternatives to fossil fuels, nuclear energy, and large centralized power facilities, the fantasy got more and more focused around the theme of Energy.

Kye was providing encouragement for this travelling show idea, and an old friend of Kye's, Greg Jacobs, heard of it. Greg's interest was and is to use railroad cars as travelling educational workshops; toward that end he & some friends founded Eureka Railroad Corp. With his architectural background, Greg became intrigued with how to <u>design</u> such a show as Wilbur, Elizabeth & Kye were envisioning.

Greg--who lives in Fort Wayne, Indiana--came to AERO's Wind Energy Workshop in Billings in November 1975, and talked more specifically with Elizabeth & Wilbur at that time. We all decided that if we were going to mount a show for the following summer, 1976, we had very little time to plan it and carry it off. Greg went home and began designing.

In January '76 Greg returned to Montana with a set of beautifully drawn-up plans, and a proposal for his Eureka Railroad Corp. to design and build the show.

Kye, Greg, E & W met at the Woods' house in Roundup for 2 or 3 days during the latter part of January. Our 'lead time' now was quite short. We knew that if this show was going to happen--this year anyway--things would have to break very smoothly for us. We projected a budget--for building the show, assembling the devices & displays, paying troupe-members very minimal salaries, and making the tour. Greg & Eureka's part of the projected budget was very reasonable: about $8,000. The total projection came to something over $20,000--and the final budget ended up at near $30,000. Really quite low for what we managed to accomplish.

We decided what roles we'd have to fill: we needed financial backing to begin with, and we got that with some 'advance' money from AERO and

some private individuals (including, particularly, Kye) guaranteeing the Show's expenses; because we were never sure of getting the Show funded, we were constantly conscious of keeping expenses low, and this flavored our whole approach; we didn't skimp--we bought very good quality paint, etc.--but we were careful not to waste anything. Anyhow...having filled the 'roles' of 'financial backers' we proceeded to lay out other roles. Coordinators for the Show? Greg said, "I've always thought of Wilbur & Elizabeth as directors of the Show." We'd been talking the fantasy; now was the time to put up or shut up! so we agreed to be co-coordinators. We also needed technical personnel, theater and music personnel, a travelling "front person" to set up sites and promote the Show. We somehow had to find people who were willing to make very little money just to participate in this idealistic (but ultimately, we felt, practical), crazy (but thoroughly thought out) scheme. We decided that RIGHT AWAY we needed a chief technical person and the "front person." If we could get those two roles filled within two weeks, we'd do the Show. If not, we'd bag it.

Wilbur and Elizabeth were assigned the job of collecting people to fill the roles. Very quickly we filled the technical directorship. Jim Baerg had attended AERO workshops and had recently (in November '75) directed the Montana Alternative Agriculture Conference in Billings; he was a carpenter and handy-person; he was interested in promoting renewable energy. He agreed to be the technical director, to build some devices and try to get manufacturers to donate others, to work on displays.

Now for the "advance person." Wilbur & Elizabeth went to the town in Montana, Missoula, where we felt we'd be most likely to find someone with the skills and foolhardiness necessary for this job. A friend at Butterfly Herbs, John P. Anderson, turned us onto David Polovin--after we'd interviewed several other people and were close to giving up hope of finding the right person. David & Elizabeth & Wilbur talked over coffee in the Gilded Lily restaurant upstairs in the Butterfly Building for a couple hours; we spread out Greg's impressive plans for the Show--these always were a major selling point; and David decided to turn down a $700-a-month job for the $450 we offered.

While in Missoula we gathered into the fold another technical person, Randy Reinhart, who was in school at the University but got so enthusiastic about the project that he arranged work-study credits for himself to work on the Show thru spring and summer quarters. (Randy had also attended various AERO functions, including the Wind Workshop that Greg and Jim Baerg had attended.)

W & E put the word out to various drama departments in colleges around the state...but ended up getting our theater and music personnel almost entirely thru personal contacts outside of academia...our Show probably sounded a little too crazy for most people in schools.

The next person I recall us "getting" was someone that Wilbur had met a year or so before in Red Lodge, a guitarist and singer named Scott Crichton. Scott was in San Francisco studying music. His politics were right, his lifestyle was lowkey & inexpensive--qualities very necessary to the success of our enterprise: qualities that David Polovin, Jim Baerg, and the other participants so far had evidenced--and after some correspondence, Scott agreed to come along as musician and, as it turned out, actor.

Thru Greg Jacobs, we heard of the availability of Susan Ward as theater director. She was in Seattle studying for a Masters degree in directing at the U. of Washington, and wrote us such a dynamite resume full of ideas that sounded right up our alley that we were happy when she agreed to be director.

Also thru Greg, we had already met Robin Leenhouts. In fact, she had come to a party at W & E's house in the fall of '75. She and her partner David Nimick had demonstrated two-person juggling at the party. Many crunched apples were the result of this demonstration and subsequent attempts by others at the party to learn the art. Robin had heard of our fantasy and had indicated her interest in participating in it. Greg ended up 'employing' her as artist and designer in fulfilling Eureka's contract with AERO to build the Show, and the Show ended up benefitting greatly from Robin's steadying presence and varied skills.

Thru Scott Crichton, we got two more troupe members: Angie Leprohon, Scott's musical performing partner in San Francisco; and Nan Billingslea, a friend of Scott & Angie's who was visiting them in San Francisco during the correspondence regarding the Show, and who "detoured" north to Montana on her way back to Baltimore--to visit friends in Red Lodge but mainly to see E & W in person to apply for an acting-singing role.

So how many people is that? Wilbur, Elizabeth, Greg, Robin, Jim, Randy, David, Scott, Angie, Nan, Susan...eleven. Three more to go. Bob Cater came on as a technical helper, thru his own initiative and persistence; his older sister was a friend of Nan's from Baltimore who had moved to Red Lodge; Bob had come out from Baltimore to live with his sister; so thru Nan and Scott Crichton he heard of the Show, and tho' he was just barely 16 years old, he convinced us he would fit in. And he did.

Emoke, our dancer-songwriter-actress, I think came to us from seeing our advertisement for theater people, placed in Seattle-area theaters by Susan Ward. (I'm not too clear on how she first heard of us.) She wrote us very strong and positive letters about her desire to participate, and we asked Susan to interview her. It turns out Susan once had been in a dance class with Emoke--years before--at Washington U. in St. Louis. This was only one of a series of what we came to call "cosmic connections" among the troupe-members. (Another connection, in relation to Emoke, was that she used to room with Katrina Ryan, a close friend of AERO Board Chairman John Brown.) Many of these connections we did not find out about till we all met.

Finally, Anne Garde joined us. We had lost one actress who at first had agreed to come with us, Holle Brian. Holle instead took a job with the U. of Montana publicity staff doing art work. We had interviewed Holle in Missoula and she had told us about Anne Garde's work with a small woman's theater group she founded called "Nickel and Dime Productions." We tried to get in touch with Anne, but missed her while in Missoula. Turns out she had been on vacation in Hawaii. When Anne finally got word of our Show, she wrote us saying she was interested, but we already had Holle. Then Holle informed us she couldn't make it. So we got in touch with Anne, who came down from Missoula after we had started putting the Show together, in June, in Roundup, and it was clear that Anne was the final, up-till-then missing, ingredient: she became the barker.

This, to the best of my recollection, is how we assembled the troupe of the first NWES.

ORIGIN OF NAME? CRITERIA FOR SELECTION?

When Greg came out with his designs for the Show, he labelled it Great Western Energy Show. That sounded fine, except that it was too close to Great Western Sugar Company (a Billings outfit). So we said, How about New Western Energy Show. After all, we are dealing with what is--to most people--new energy. (Ironically, of course, it is the oldest energy.) So we let that name sit a moment while we contemplated the fact that Montana Power's "wholly owned subsidiary" which mines the coal at Colstrip is called the Western Energy Company. Well, we thought, much of the impetus for this Show is a response to the kind of "development" that Western Energy represents...so we went with the name. (We also noted that with just a transposition of letters NWES becomes NEWS--and we felt we were bringing the news.) I still am not entirely satisfied with the name. It's cumbersome. But it says what we are. The fact is, from the beginning of this Show, we had to make decisions like this very quickly and then go with them. There was no time to look back and revise.

There is a funny anecdote about the name of our Show. When we pulled into Helena, there were announcements on the radio that the New Western Energy Show would be at the Fairgrounds there. Somebody from Montana Power heard the announcements and called up the radio station to complain that Montana Power was Western Energy and they didn't have any show at the Fairgrounds. I don't know what that means--was Montana Power unaware of us till then? But it does show that our "pun" on their subsidiary company finally hit home.

TOUR SCHEDULE--CRITERIA FOR SELECTION OF TOWNS AND DATES?

In March Kye & Greg (who came out from Fort Wayne again to "finalize" the contract between Eureka and AERO) and Jim Baerg, Randy Reinhart, David Polovin, Elizabeth and Wilbur sat down with a big map of Montana on the wall, and decided upon the route.

W & E already had thought about this considerably. We had decided to focus mainly on small towns--partly because this was an untried phenomenon, this Show, and we didn't know how well we'd get it together; but mainly because we felt we'd be an attraction in any small Montana town we entered (nothing ever comes to small towns anymore, it seems) and we felt that people in small towns and rural areas would be more likely to implement the ideas & techniques we were dealing with, immediately, than city-dwellers. And we were interested in getting folks busy devising their own renewable energy schemes for their own scenes. Once an inventive farmer has seen a solar collector, he'll say: I could do that! And maybe he'll say: I could improve on that! This was our reasoning.

Another factor in our choice of small towns was the availability of sites for free. Fairgrounds, etc. tend to be used seldom, and tend to be available to whoever needs them, in small towns. Not so in cities.

The route? We wanted to cover every major--shall we say "ecosystem"?--every major biotic-community--every type of terrain from plains to mountains in our tour. We wanted to demonstrate the suitability of various types of renewable energy systems--sun, wind, water, wood, etc.--in different places.

July and August were our touring months.

From our previous experience with Montana weather, E & W decided that it would be best to stay east of the mountains during most of July; head over the divide for late-July and August; then head back east again in

mid-to-late August. This was just a guess. We were trying to project when we'd get the least amount of rain, where. As it turned out, we guessed pretty well. We were rained out only three or four times, I think. Often rain just preceded us or immediately followed us. One time in Helena, it kept raining thru the day then clearing up for our performance, raining again, then clearing up for another performance. A little child was heard to ask his mother: "Why is it raining around us and not here?" And the mother replied: "Because we're the good guys."

At any rate, we spent about two hours in front of the map tracing a counter-clockwise route shaped roughly like a whale, and this was like our choice of the name for the Show and many other choices: we quickly came to the decision and we stuck with it. I think the only changes from our original projection were Wolf Point instead of Scobey, and Lame Deer instead of Crow Agency. These were made by joint decision of David Polovin on the road and the coordinators back in Roundup-Billings; the changes were necessitated by schedule conflicts.

DID EUREKA PAY FOR THE TRAILER?

No, AERO paid for everything. We had a contract with Eureka to design and build the display-part of the Show. AERO's duties were to sponsor the Show (provide money and personnel), assemble the devices to be displayed, and to run the tour.

BACKGROUND ON EUREKA...

A non-profit corporation similar to AERO except that it still may not have tax-deductible status that AERO enjoys (contributions to AERO can be deducted from income taxes); I'm not sure if Greg has gotten that coveted tax-deductible status yet. They get their money from grants and contracts. They are now engaged in setting up their railroad-car scheme.

They are, for some legal reason, a Colorado corporation, although most of the active Eureka people live in Indiana or the midwest.

They accept "memberships"--$10 a year.

WHEN DID BILL 86 FUNDING FOR NWES COME UP?

We had finished our tour, at Lame Deer, and were resting and recuperating at the ranch of Ellen Cotton, an "aunt" of Kye's, south of the Northern Cheyenne Reservation. We were in Ellen's house holding--no kidding--an "awards ceremony." Goofy awards like "most visits to the Clivus multrum before a performance" and "junk food munching champion." And in the midst of this awards ceremony, which was hosted-narrated by Anne Garde and Nan Billingslea, the phone rings. It's the AERO office in Billings. Don Cuthill, who was employed by AERO then, asked to talk to Kye: "Have you seen the paper?" he asked her. No, we haven't seen the paper. So Don gets a little cagey and vague, but finally Kye gets him to tell her: AERO's New Western Energy Show was funded by Bill 86!

We had thought our underwriters were going to be out around $20,000. Now this was covered.

Interesting timing--during our awards ceremony--the biggest award of all. We didn't get the money, however, till January '77.

For the 2nd year NWES we got funded in excess of $40,000...so were able to refine the Show considerably and pay people better. But the first

year, thru luck and the good will of a lot of people (particularly in Roundup), we managed to do the whole thing for $30,000.

And now Bill 86 has funded our setting up an NWES "center" in Helena.

We may not get any more funding thru this source, but it's served us well, and we think we've used the money very well.

JUNE '76 SUN TIMES. . .

I'm enclosing the Sun Times dated May '76. As you may have noticed, the Sun Times often comes out a month or so after the month it is dated for.

JULY '76 SUN TIMES...

This was, essentially, the first draft of the Montana Renewable Energy Handbook, and had very little other news in it--and very little on the Show except a notice that it was going well.

SUSAN WARD, ESSAY...

Yes, Susan did write an essay. Most of it was printed in the Sun Times for August-Sept. '76, which had the rundown on the NWES. I will bring the complete essay with me to Missoula.

'76 TOUR, CHILDREN'S WORKSHOPS...

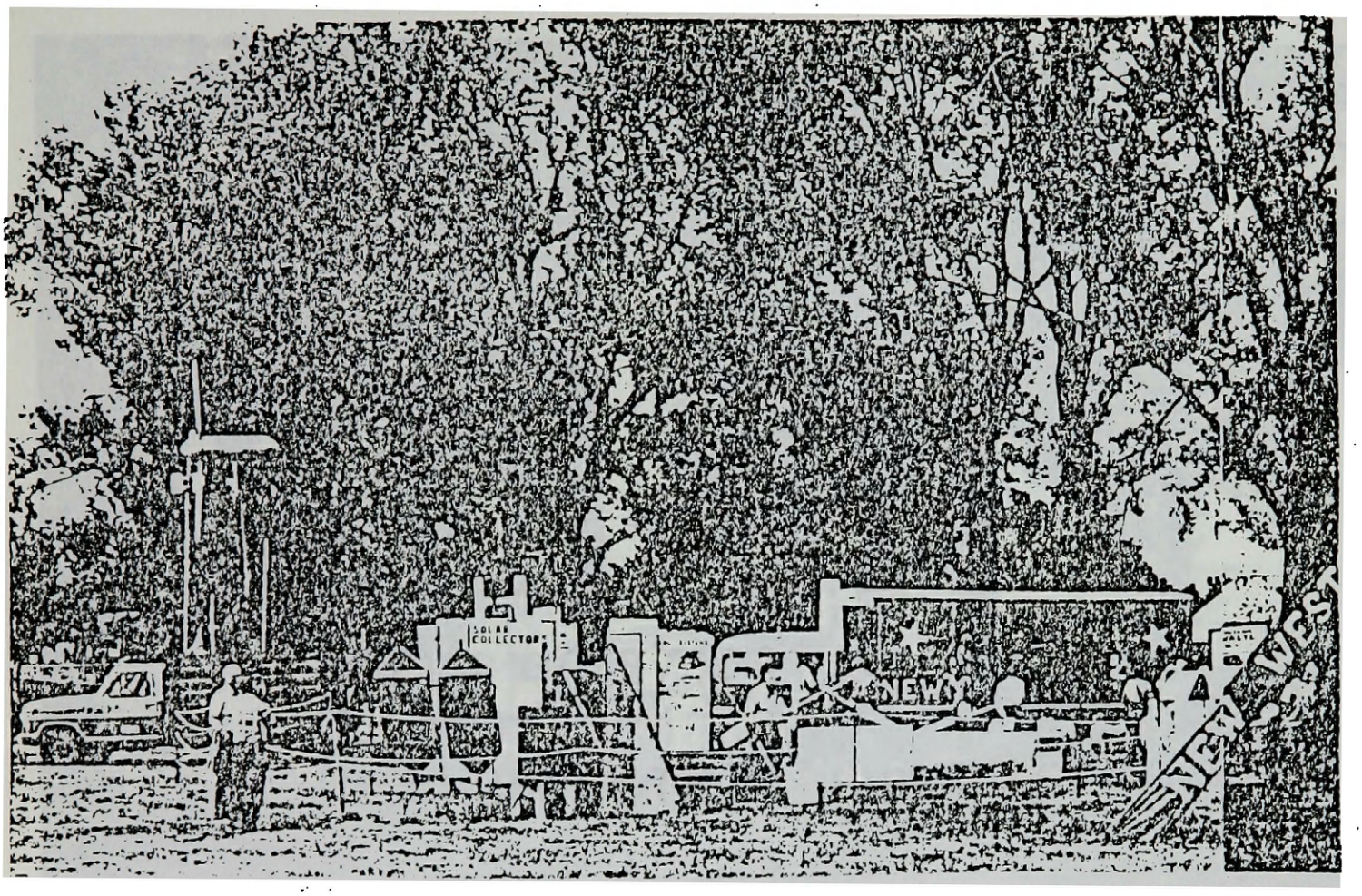
A few. Kite-making in Bigfork. A few others. I don't remember too clearly. We were not terribly well organized about this. Robin, Emoke &, I think, Anne worked on these.

MEDIA APPEARANCES OF NWES...

For '77 you'll have to consult Robin & David. There seemed to've been more national publicity in '77. In '76...I will bring with me newspaper clippings. TV? Great Falls...both TV stations covered us as we went thru town or later appeared in Chouteau, nearby. Helena TV was real good, too. Missoula and Billings were real nothings, for TV.

APPENDIX 4

PROPOSAL FOR FUNDING THE 1977 NWES AND RENEWABLE ENERGY ACTION COORDINATING TEAM



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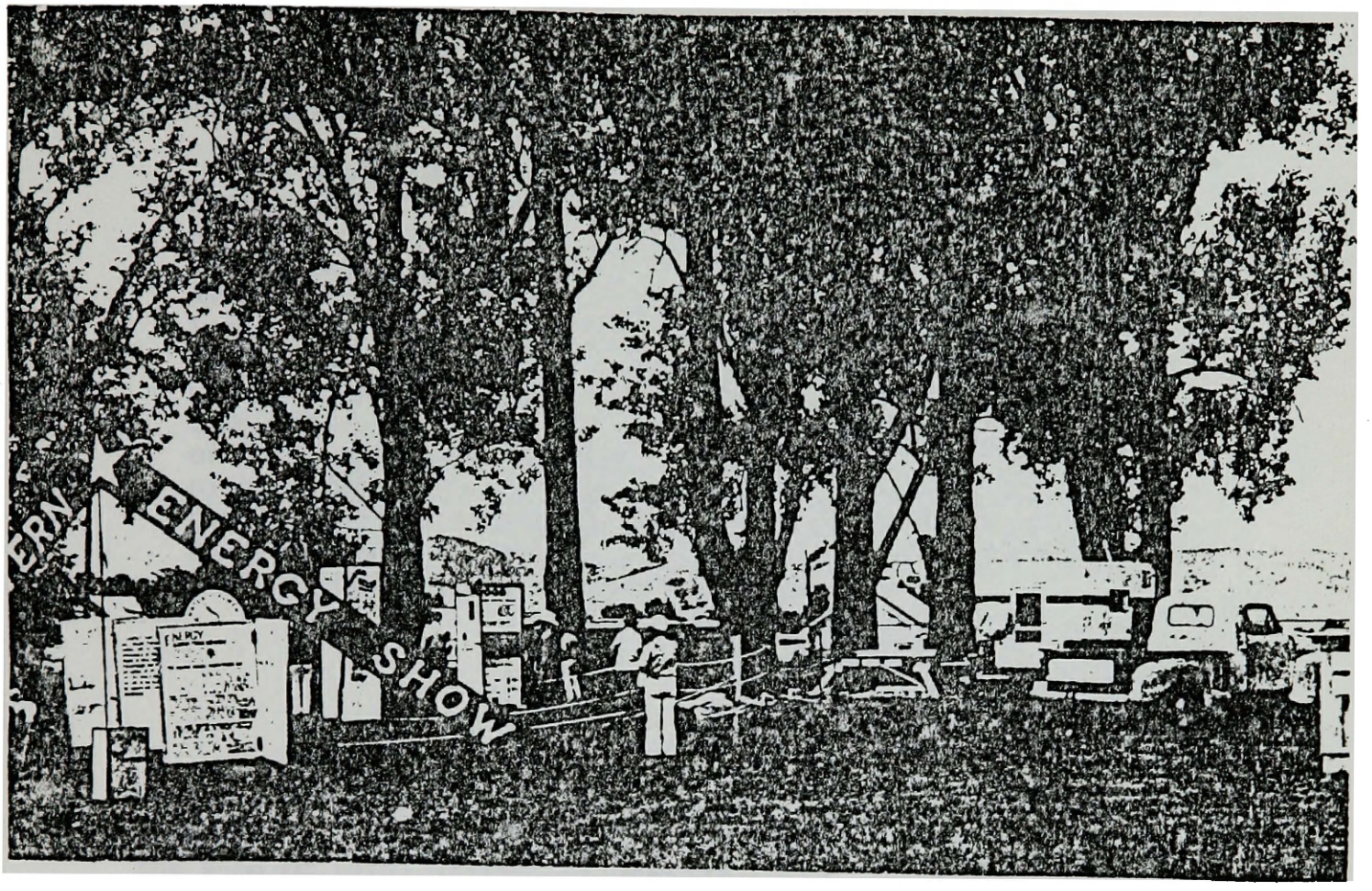


BACKGROUND

Last summer--July and August, 1976--A.E.R.O.'s New Western Energy Show toured 13 Montana towns, staying an average of three days per town, and playing to an estimated 10,000 people over the eight-week period.

We displayed working renewable energy devices, distributed relevant books and pamphlets, entertained and informed with music and theater. In nine of the towns we built (and left behind to be installed) operational solar water heaters.

For a first-time venture, the Show attracted enormous interest and support. [See appendix 2 : excerpts from NWES "fan letters."] However, we at A.E.R.O. feel that certain aspects of the Show deserve further work. In particular, we want to respond more thoroughly to the specific needs and potentials in each community where our 1977 Show appears.

A letter from a longtime A.E.R.O. supporter, written in September, 1976, suggests the approach we have decided to pursue:

> "My whole family and I immensely enjoyed the New Western Energy Show at Choteau. I think you have something very significant and useful. I hope you have found ways to pay for it and will find ways to make it a regular, annual event. My principal suggestion concerns advance and follow-up work, both of which will tell the tale in making the Show a good organizing instrument. I would presume that another year, when the Show has some reputation, there will be many communities eager for it. I would choose them on the basis of local sponsorship and their willingness to do advance preparation. You may need one or two people who do nothing but advance and follow-up work. I'm not thinking simply of things which draw crowds, but things which engage people in learning-doing about alternate energy."
>
> --from a letter dated 27 Sept. 1976, by Richard Austin, who was instrumental in helping A.E.R.O. obtain funding to supports its first two years of existence

Simply assembling the Show physically last year was so overwhelming a task that we had too little time, energy, and money to devote to the kind of local organizing Richard Austin recommends.

Thanks in large part to last year's funding of the Show through Bill 86, we have certain basic materials to adapt and build upon for this year's Show: truck and trailer, bus for living-cooking quarters for the troupe, information booth, display panels and devices, theater props and scripts. Most important, we have a core of experienced, capable, and enthusiastic people to carry on this year's Show. /See appendix 6 : personnel./

OPERATION

In 1977 we will focus on improving: community networking and publicity before the Show; interacting with the community during the Show; dissemination of information within the Show itself; follow-up in each community after the Show has gone.

Our strategy is this:

(1) We go to fewer towns--and spend more time in each town. Last year's schedule of two or three days per town, one day of travel, two or three days in a new town, and so on, was beneficial from the standpoint of covering as much territory as possible; but it was, frankly, too strenuous for the troupe. By the end of the summer NWES-people felt "burnt out" and also felt that we had only brushed the surface of each community. So this year, instead of 13 towns in eight weeks, we plan to go to eight towns in eight weeks. Five days in each town, two days travel and rest, five days in the next town, and so on.

(2) We go to larger towns. Last year we concentrated on towns in the 1,000 to 4,000 population range. After the '76 tour, requests that we visit bigger population centers poured into the A.E.R.O. office. One example is this letter from a radio announcer who taped some NWES songs last year:

> "You guys are great--on tape and in Choteau!
> Good luck, and come to Great Falls sometime."
> --Jessica (KUDI radio, Great Falls)

So this year we are gearing up for the larger cities of Montana, including Great Falls, Billings, and Missoula. /For a complete list of prospective towns for the '77 NWES, please see appendix 4./ We will anticipate and prepare for larger audiences with potentially broader ranges of interest, information, and abilities.

(3) We create a Renewable Energy Action Coordinating Team (REACT). During the NWES, the REACTeam will include among their coordinating efforts all advance work for the Show. During the tour, REACT will lend a hand in the Show's local activities. And after the tour, REACT will help document the '77 Show, as well as continuing statewide networking activities.

ADVANCE AND FOLLOW-UP

Skilled and thorough advance work ... crucial to the success of the 1977 NWES. We feel that the additional "networking," data-gathering, and skills/resource identification responsibilities of our advance people are very important to the rapidly evolving need in Montana for coordinated education in renewable energy and energy conservation. Already, 31 grants from Bill 86 funds have been issued around the State; HRDC's are gathering and utilizing energy conservation and renewable energy information, initiating projects and building devices; the National Center for Appropriate Technology has been established in Butte, with plans for funding small appropriate technology projects; citizens are circulating a solar initiative petition around the state; a research team has produced for the state an energy conservation plan incorporating many renewable energy suggestions; and private citizens around the state are bombarding the A.E.R.O. office with requests for information about alternative renewable energy. /For elaboration, see appendix 10 ./

Because our advance people's responsibilities will extend beyond, and include more than simply the preparations for the Show, and because their jobs' time frame extends both before and beyond the NWES tour itself, we have decided to present our grant proposal as two integrated proposals--one for NWES '77 and one for the REACTeam. For the period from March through August, NWES will pay half of the REACT salaries and A.E.R.O. will pay half. In September A.E.R.O. will pay their complete salaries. A.E.R.O. will pay REACT's expenses, with the exception of those anticipated for regular NWES advance work. /See Budget; and for details of REACTeam responsibilities, see appendix 5./

THE SHOW

The 1977 NWES will differ somewhat from the 1976 setup:

The Devices. We found last year that we had two problems with some of our hardware--it was too heavy, and it was not integrated well enough with the other functions of the Show. This year we will eliminate some of the heavier components and substitute smaller working models. We will also (1) use a larger inverter (and possibly add a second wind-generator) to enable us to add our slide projector to the devices we run on wind-generated electricity, (2) build a "bread box" water heater to heat all water used in the bus, (3) build a working solar shower, for use with our water heating collectors.

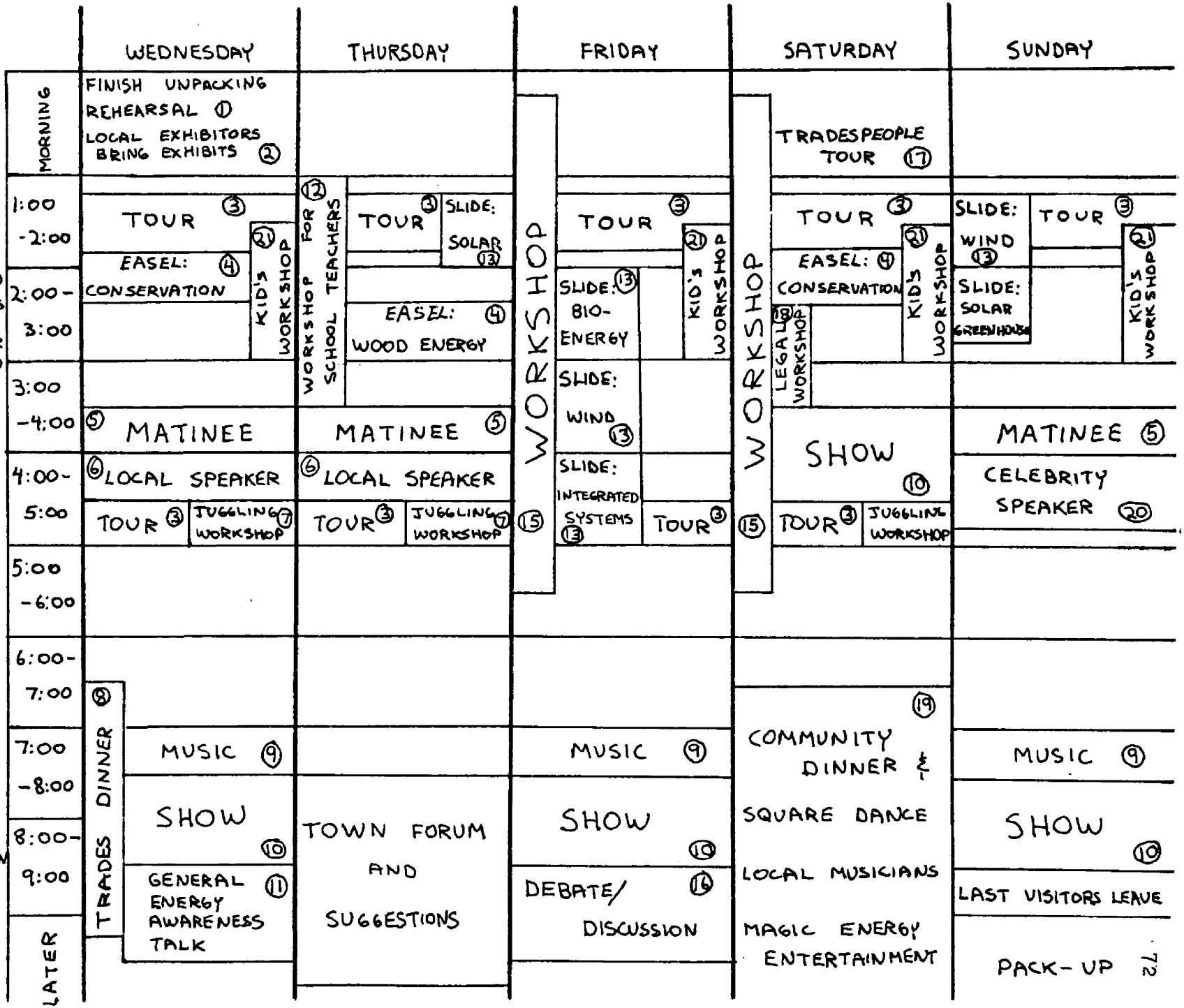
The Information Booth. This year we will incorporate an information sheet 'bar' or 'smorgasbord' to the information center. This will consist of single fact sheets, selling for 5¢ apiece, on various aspects of renewable energy and energy conservation. A visitor will be able to assemble his/her own packet, and we will provide a cover and staple them together. We will also provide a 'reference table', where people can sit and research information from publications provided.

A Third Vehicle. AERO has received many requests for a small renewable energy display to be set up at a meeting or conference; we have never been able to comply with these requests, because all our NWES vehicles were too large to move for a single event, and all our personal vehicles are too small to accomodate hardware and information panels. NWES needs a 'run-around' vehicle for the Show, and to carry troupe members. So we have decided to purchase a third vehicle--probably a small pickup--to fill these three needs.

(The next page is a tentative schedule of a typical NWES visit in the summer of 1977, with explanations following on page 6)

NEW WESTERN ENERGY SHOW

5-DAY SCHEDULE



MISC. EVENTS:

① PRE-ARRANGED TOURS FOR GROUPS

② GUERILLA THEATER ANYTIME, IN SHOW IN TOWN

③ LEGAL & BUSINESS SEMINARS

EASEL = PRESENTATION ON STAGE USING POSTERS & PROPS

SLIDE = SLIDE SHOW W/ TALK IN TRAILER

THE WEEKLY SCHEDULE

1. Rehearsal: Most of the time we won't need a rehearsal, but we may want to add or subtract skits at times, and brush up on rusty parts after each 2-day break.

2. Local Exhibitors Bring Exhibits: We will follow the same policy as last year: people with renewable energy devices, energy conservation information, crafts, etc.,will exhibit ourside the NWES Circle. We will encourage spinners and weavers, potters and other craftspeople to demonstrate their skills. One change: in order to lighten our load, we will not carry wood stoves, but will ask local dealers to bring them; these will be inside the circle.

3. Tour: Each day except Sunday we'll have 2 scheduled, general tours of the Show exhibits, conducted by NWES personnel. We will do our best to make these as flexible as possible, emphasizing and elaborating on subjects that are of most interest to the tour participants.

4. Easel: An easel presentation is a lively talk illustrated with graphics on large posters or scrolls, and using props such as small-scale models and samples of materials and designs. We intend our easel presentations to be dramatic and colorful, as well as informative and factually accurate--a chautauqua-like combination of speech and drama.

5. Matinee: Our matinee theatricals will be similar to those of last year. We will try to include special performances of local people with appropriate skills (jugglers, magicians, unicy-lists, acrobats, etc.)

6. Local Speaker: This person will be chosen beforehand, and could be someone working on a renewable energy device, someone who used a Jacobs Wind Electric before the advent of the REA, a local official with a possible plan for the town, etc. The possibilities are numerous.

7. Juggling Workshop: Self-explanatory. We found many people eager to learn this skill last year.

8. Trades Dinner: Our advance team will set this up in each town (it might just be an after-dinner talk). They will locate and contact tradespeople who would benefit from and be interested in a renewable energy talk directed toward business and job opportunities. The Team will also find a group--probably a civic organization--to sponsor the event. A NWES person--or possibly a special speaker--will give the presentation, and will advise the audience about the upcoming "tradespeople tour" on Saturday.

9. Music: New Western Energy Show musicians will play, and/or we will spotlight a local musician or group. We will encourage audience participation.

10. Show: A little of last year's theatricals, and lots of new material.

11. General Energy Awareness-Talk: In each town we hope to find a place to set up the show which will be near an appropriate building for holding meetings. This talk will take place in that building, with slides, and will cover the same sort of ground (though less thoroughly) as will the subsequent slide shows during the day in the trailer(see#13)

12. Workshop for School Teachers: Information on energy projects that schoolteachers could use, for primary grades, junior high and high school. Reference information.

13. Slide Shows: Our slide shows will take place in the trailer, and will cover past history, present projects around the state and country, possibilities for the future. They will deal with energy use on both a small and a large scale.

14. Town Forum: This is a very important part of the 1977 Show, and will involve a good deal of preparation. Much of the responsibility for a good Town Forum will lie with our advance team. They will conduct a renewable energy survey of each town /see appendix # 7. We will include the information they gather in a presentation which will "spotlight" the town and its possible renewable energy future. We will use slides of the town and of renewable energy projects in similar areas; we will discuss Montana laws (and proposed laws) and regulations which encourage or discourage renewable energy development. We will emphasize possible economic development and job opportunities. We will encourage discussion and suggestions of possible actions that citizens and the town could take to conserve energy, utilize renewable energies, and become more energy independent.

15. Workshops: Our advance team will arrange these hands-on workshops before the Show comes to town. Depending on the local situation, participants will: a) build two 4' X 8' solar water-heating collectors. In this case, the local sponsor will be determined far in advance of the Show, and hopefully the preliminary plumbing will be done on the 'target' building, so that we can both build and install the collectors during the Show. b) finish (or participate in the building of) a solar greenhouse. Several of the HRDC's in the state--as well as many individuals--are planning to build solar greenhouses this summer, and we hope to coordinate with them. c) build a solar dehydrator or solar oven. One could be built at each workshop.

16. Debate/Discussion: The topic(s) for this will be determined by, and announced at, the Town Forum on Thursday night. We will pursue and elaborate on the more interesting and/or controversial ideas introduced at the Forum. Local speakers will be encouraged.

17. Tradespeople Tour: We aren't officially open in the morning; with few people around, we can conduct this special tour without distractions. Included in the tour will be a visit to whatever renewable energy (Bill 86, etc.) projects are in the area.

18. Legal Workshop: This will include advice and information on Bill 86 and other legislation and proposed legislation, codes, regulations, etc.

19. Community Dinner, Etc: Self-explanatory. This will be arranged beforehand by the REACTeam, and the dinner will probably be potluck or a spaghetti feed.

20. Celebrity Speaker: Could be someone from the Show, from the town, from the state, from out of state. Endless possibilities.

21. Kids' Workshop: Renewable energy and conservation concepts are basically simple, sensible and easy to understand. Children learn them eagerly and quickly, and we feel that NWES is an eminently suitable place to conduct child-oriented energy education workshops. /see appendix # 7/

BUDGET AND FUNDING REQUEST

Because our project has two parts, we are presenting a two-part budget. Before we get into the figures, a few words of explanation are appropriate.

This year's budget is higher than last year's for several reasons; among them:

(1) We are greatly expanding the scope and functions of the 1977 Show;

(2) We cannot count on the incredible number of "in-kind" donations of services, tools, and facilities that we received last year (see appendix I for 1976 final budget). For example, last year the Show's very necessary third vehicle, a pickup, was donated by one of the troupe-members; this year we'll have to acquire our own pickup. It is possible that we'll get living and working quarters rent-free, as we did in Roundup in 1976; it is possible (even likely) that we'll receive a great deal of volunteer help again; it is possible that we'll be able to set up the Show for no cost in many cities (though our experience in larger cities last year indicates otherwise): all these things are possible, but we can't count on them, so we must budget for them.

(3) Personnel who worked for extraordinarily low pay in 1976 need to earn higher salaries to be able to work with us this year.

(4) We anticipate rising costs in food (with the freeze in Florida and the drought in California) and other items including tools, gasoline, vehicle parts, and insurance, are all likely to go up.

BUDGET: PART ONE: Renewable Energy Action Coordinating Team

Personnel (two half-salaries, the other half to be borne by NWES budget, see Part Two) @ $350/month, March through August	$2100.00
Personnel (two full salaries for work in September, after NWES tour) @ $700	$1400.00
Consulting fees (for A.E.R.O. and other personnel not covered in NWES budget, engaged specifically in support for REACT)	$ 300.00
Travel expenses (March thru September)	$ 625.00
Film and film-development costs	$ 235.00
Slideshows, compiled & donated by A.E.R.O.	no charge
Video camera rental and tapes	$ 300.00
Audio tapes for interviews, recording Show	$ 65.00
Audio tape recorder	$ 115.00
[illegible] for PSA & other radio	$ 65.00
[illegible] hoto-reproduction (publicity)	$ 150.00
[illegible] es	$ 85.00
[illegible] ies & postage	$ 60.00

BUDGET: PART TWO: New Western Energy Show 1977

Promotional	phone $200 postage $200 stationary $125 posters, brochures $350 advertising $375 printed material $240	$1490.00
Insurance (vehicle and liability)		$2700.00
Rent	NWES office, 7 mos. $175 const. site 2½ mos. $375 housing 1½ mos. $450 show sites in tour towns, building for lectures & other local functions $600	$1600.00
Salaries	½ of two advance-person's salaries $4200 (6 mos.) 2 directors $1800 (3 mos.) 3 technical $1800 (3 mos.) 14 troupe members @$250/mo. $10,500 (3 mos.) 1 follow-up director $600 (2 mos.)	$18,900.00
Food	14 people, $2/day, 90 days	$ 2520.00
Transportation	renovate bus $900 repair truck $500 repair trailer $200 acquire pickup (used) $2000 on the road: bus @ 15¢/mi., 2000 mi. $300 truck @ 24¢/mi., 2000 mi. $480 pickup @ 12¢/mi., 3000 mi. $360	$ 4740.00
Theater		$ 600.00
Children's Programs		$ 250.00
Advance Workshop Fund		$ 500.00
Show exhibits & displays		$ 4200.00
Documentation	$200 supplies $300 person/1 mo.	$ 500.00
		$38,000.00
	10% cost overrun	$ 3,800.00
	TOTAL: Part Two	$41,800.00

TOTAL FUNDS REQUESTED

Part One: REACT	$ 5,500.00
Part Two: NWES	+ $41,800.00
Sub-Total	$47,300.00
minus A.E.R.O. "seed money" for this project	- $ 2,500.00
Total Request	$44,800.00

Note: A.E.R.O. is in the process of applying for C.E.T.A. funding for the salaries of REACT and NWES personnel. We have been informed that if funding does come through, payment of salaries will not begin until May, 1977, at the earliest. If C.E.T.A. funds this project, A.E.R.O. will return any unused salary monies to the Bill 86 fund.

FINAL WORDS

From its beginning, A.E.R.O.'s philosophy has been to do more with less. For our projects we try to find talented people who are able to "live lightly on the planet" and don't need to earn what is considered an ordinary adequate salary. Examine the projected budgets above and you'll see that salaries are quite low--one might call them, easily, "poverty-level."

Our people work on the New Western Energy Show because they believe in the idea and because they value the experience.

We are grateful that last year's Bill 86 funding came through, and we hope this year's continuation and expansion of the New Western Energy Show is deemed worthy of support.

Kye Cochran
A.E.R.O. Administrator

Wilbur Wood
A.E.R.O. Secretary

SUMMARY OF 1976 NEW WESTERN ENERGY SHOW EXPENSES

Personnel, salaries	$10,105.40
Equipment	$12,526.44
Promotional expenses	$ 1,273.22
Operations	$ 4,038.51
Food	$ 1,779.72
TOTAL	$29,723.29

This total does not reflect the very large number of donations to the show--of labor, services, tools, food, vehicles (one was loaned and one was purchased by A.E.R.O. separately from the Show's budget), and living and working quarters. If these items could be totalled, by their monetary value, the actual cost of the Show would certainly approach $40,000.

The $1,081 difference between the NWES-'76 budget of $30,805 and the final costs of $29,723 are being used by A.E.R.O. to begin work on NWES-'77.

EXCERPTS FROM NWES "FAN LETTERS"

"Saw show in Bozeman--Great! Keep up good work...we need more like you."

--D.H. Black
Greeley, Colorado

"I am excited to hear that this is happening."

--Ces Reisman
Arizona Community Action
Energy Project, Phoenix

"I really/truly enjoyed the New Western Energy Show (in Roundup).... Could we borrow some slides from you on the NWES or buy them to share with people at NSF?"

--Cecil Cook
Integrative Design Assoc.
Washington, D.C.

"Could you send me a schedule of where the Energy Exhibit will be displayed--and how people might make arrangements for having a showing in their area."

--Jerome Goldstein
Executive Editor
Rodale Press, Emmaus, PA

"If the NWES is going to be in the Boston area soon--please let me know."

--Rob Hatch
Eastham, Mass.

"I am fascinated by the way in which you are increasing public awareness in alternate energy sources."

--Cliff Simon
Fort Wayne, Ind.

"Your tape of NWES was very impressive! I may ask to borrow it next semester."

--John Enger
Assoc. Prof. of Physics
Northwest Community College
Powell, WYO.

"Just received your letter and info on the NWES and I wanted to tell you that it is a fantastic idea. Please send me a schedule of when you're appearing where."

--Mike Evans
Wind Power Digest
Bristol, Ind.

"You're good enough to be on Broadway."

--comment from onlooker
after NWES theater
show in Helena

STATE OF THE ART

Alternative energy fairs are not new. Many have been held, over the past few years, all over the country. Nor are travelling shows--of various types--unique. But the particular combination that is the New Western Energy Show--a travelling renewable energy/appropriate technology fair with both technical and theatrical components--this still seems to be unique.

There is a very fine travelling exhibit on renewable energy in Colorado, sponsored by the U. of Colorado (Denver). But it has no theater.

Nor does E.R.D.A.'s travelling "trailer" show have theater, besides which it is a very electrical-intensive exhibit, unlike the NWES.

There is a travelling show in British Columbia which has mostly presented crafts, juggling, theater and the like; just this year it is adding a renewable energy theme.

There is the "methane bus"--which NWES troupers saw and toured in Big Fork last summer ('76)--a bus outfitted with solar collectors and other devices, and put together so it can run on regular gasoline or on methane gas when methane is available.

Our New Western Energy Show may well be the inspiration for similar travelling shows elsewhere. A.E.R.O. administrator Kye Cochran travelled to New England in the fall of '76 presenting slideshows and videotapes of the NWES and lecturing on "How to Put Together a Travelling Energy Show." A "New Eastern Energy Show" appears to be in the offing for the New England region.

We might also mention that A.E.R.O. and the NWES are responsible for helping some people in Wyoming get started on forming their own "A.E.R.O." A couple renewable energy conferences have been held, in Sheridan and Gillette, and A.E.R.O.-NWES personnel have attended.

Spinning off the NWES concept is A.E.R.O.'s own Spring 1977 School Project: a pilot project in which six NWES-ers will present energy-related theater, workshops, and classroom discussions in elementary schools in Billings and Missoula, during April and May.

LIST OF POSSIBLE TOWNS (to be narrowed to 8)

Town	Population	County	Population
Miles City	10,000	Custer	12,200
Glasgow	5,000	Valley	11,500
Lewistown	6,500	Fergus	12,600
Great Falls	70,000	Cascade	90,000
Choteau	1,500	Teton	6,200
Kalispell	10,500	Flathead	40,000
Hamilton	3,000	Ravalli	14,500
Missoula	40,000	Missoula	60,000
Helena	25,000	Lewis & Clark	36,000
Livingston	7,000	Park	11,200
Billings	80,000	Yellowstone	>100,000

RENEWABLE ENERGY ACTION COORDINATION TEAM
LIST OF TENTATIVE DUTIES

1. Line-up N.W.E.S. coordinator(s) in each town and coordinate with the local HRDC staff:
   a. publicity: poster put-up,
   b. auxilary exhibits near N.W.E.S. or in schools, library, etc: farmers' market, craft sale and show, locally manufactured equipment, 4H, Scouts projects
   c. square dance and dinner (potluck, sphaghetti feed, ?): music, catering, dance hall
   d. tradespeople activities: special dinner, tour of show and of the area's alternative energy devices

2. Find place for N.W.E.S. with the following amenities, hopefully:
   a. in or very close to local population center; in large towns, someplace relatively peaceful (eg., parks, campuses, fairgrounds, etc.)
   b. approx. 150' diameter grassy circle with shaded area for trailer and theater watchers but an adjoining area with sun all afternoon for the solar exhibits; must be able to drive stakes into ground; adjacent area for auxilary exhibits; make map
   c. no rental fee - we have no admission charge
   d. toilet and washroom; we have a shower in solar exhibit; can we drain it somewhere with a hose?
   e. water supply and electricity (not essential) within 300 feet
   f. adjoining building (at most two blocks away) for slide shows, evening lecture, etc. The two dinners can be anywhere.

3. Find workshop sponsors for either flat plate water heating collector or solar greenhouse
   a. sample contract
   b. determine suitability of house for collector installation; make house plan so installation can be planned, and possibly executed during show's stay in the town

4. Renewable energy survey of each town:
   a. climatic data
   b. energy conservation plan's suggestions
   c. jobs distribution; skills of unemployed
   d. sewage and garbage disposal in town
   e. present and future energy supply
   f. local alternative energy manufacturers and enthusiasts
   g. what kinds of farms and farm products; coops
   h. local library's alternative energy collection
   i. local and state building and zoning codes; parade and other permits as necessary
   j. determine and photograph:
      1.) houses, shops, schools, and government buildings which would be possible/impossible to retrofit for solar
      2.) locations with good solar orientation for homes and greenhouses
      3.) feedlots, sewage plants which could be discussed as possible biogas/fertilizer producers
      4.) junkyards, dumps, garbage system for discussion of recycling possibilities

5.) paper mills, sawmills, forest areas
6.) local renewable energy projects
7.) locations with good wind and water power potential
8.) examples of local energy mis-use and waste

5. Vacation spots along the show's route.

Coordinator: Robin Leenhouts, 29, from Milwaukee, Wisconsin. Educated at Southern Illinois University (B.A. in design, 1970) and the University of Washington (Teaching Certificate in art, 1970). Designer, painter, juggler and photographer for the 1976 NWES. Previous experience as a naturalist for the Sharon (CT) Audubon Center and scenery designer and painter for the Skylight Theater in Milwaukee. Robin will duplicate her 1976 NWES efforts plus take on the responsibilities of general coordinator and of conducting children's workshops.

Coordinator: David Nimick, 25, from Seattle, Washington. Educated at Wesleyan University in Connecticut (B.A. in geology, 1973) and the University of Washington (M.S. in geology 1976). A geologist, educator, carpenter, and bagpiper. David led geology projects in Spain, Costa Rica, and Washington and taught community and college courses for 2 years in Seattle. He will coordinate and participate in the technical aspects of the Show.

Theater Director: Susan Ward, 28, from Seattle, Washington. Educated at Washington University in St. Louis (B.A. in drama 1971) and the University of Washington (M.A. in drama 1977). Theater director and actress for the 1976 NWES. Susan has directed with stage companies in Chicago and Seattle and run children's workshops in mime and theater.

Technical Director: Randy Reinhart, 25, from Billings, Montana. Education in progress at the University of Montana in alternative energy and education. Randy was a technical person responsible for wind and bio-energy exhibits for last year's NWES and wrote a book detailing the show. This year he will coordinate the technical workshops and help with the other technical displays and presentations.

Actress: Annie Garde, 30, from Missoula, Montana. Educated in New York at St. John's University (B.A. in English and Teaching Certificate in elementary education). Annie was the Barker in last year's theatrical shows. She has taught in grade schools and day care centers in New York and in Michigan, was a lighting technician in New York, and acted and directed for Nickel and Dimes Productions (which she founded) in Missoula. Annie will hold the Show together again as the Barker and help with the children's programs.

Musician/Technician: Angie Leprohon, 29, from Missoula. Educated at Wells College (B.A. in Chemistry) and later received a M.S. in Computer Science. Last summer she was an actress and musician in the Show. Angie has 6 years' experience as a chemical researcher and computer programmer in San Francisco and has played music all her life. This year she will coordinate tours of the NWES and will play guitar, dulcimer, and banjo and sing for the theater.

Jack-of-all-Trades: Bob Cater, 16, from Bear Creek, Montana. Bob is a high school student and worked with the show last summer, thanks to the Neighborhood Y outh Corps Program. He learned about alternative energy, helped out wherever he was needed, and became adept at explaining the Show's message to visitors. In 1977, he will be responsible for various aspects of the preparation and execution of the Show.

WE WILL ACQUIRE THE REST OF THE PERSONNEL IN THE UPCOMING MONTHS

CONSULTANTS

Kye Cochran: AERO Administrator, Editor of AERO Sun-Times, filmmaker. Lives in Billings, Montana.

Wilbur Wood: Co-director of the 1976 NWES. Musician, actor, writer, gardener. From Roundup, Montana.

Elizabeth Wood: Co-director of 1976 NWES. Actress, bookkeeper, weaver, AERO Staff person. Lives in Roundup, Montana.

Jim Baerg: Technical director for the 1976 NWES. Building contractor. AERO board member. From Glasgow, Montana.

Chris O'Brien: Instructor at National Outdoor Leadership School, in Lander, Wyoming. Tent and Awning construction consultant.

Greg Jacobs: Director of Eureka Railroad Corp. Designer of 1976 NWES. From Fort Wayne, Indiana.

KIDS WORKSHOPS - SOME POSSIBILITIES

1. Wind and/or sun dynamics:
   - mobiles
   windsocks
   - whirlijigs
   - bamners
   - flags
   - reflective sculptures (combines with mobile concept)

2. Kite making and painting with:
   - sun paints (Inko dyes which "develop" in sunlight)
   - logos or symbols for alternative energy

3. Painting or drawing:
   - drawing "energy machines," creative interpretations of alternative energy systems
   - drawing windmills
   -shadow drawing and tracing

4. Making things using recycled "junk"
   - sculptures and collages
   - inner tube prints on newspaper
   - plaiting baskets with newspaper
   - paper-making

5. Paint a big mural with an alternative energy theme, possibly on a fair building (or on paper)

6. Spinning and simple weaving using raw wool and natural material

7. Blue prints - they develop after exposure to the sun
8. Building small parabolic hotdog cookers

9. Baking cookies or breads with flour ground on the bicycle grinder, with fruit dried in the dehydrator, and baked in the solar oven.

10. Creative dramatics- helping the kids make their own energy skits, "commercials" or mime pieces

11. Movement based on natural dynamics - dancing like a fire, moving like the wind or the rising sun

Many of these projects use art as a means to energy awareness. They are designed to incorporate discussion which will make them more meaningful.

THE FUTURE

We hope to find ways at A.E.R.O. to make the NWES an annual event. We hope to make the summer tour less and less dependent on "outside" funding, and more and more an event that generates its own revenue. This summer of 1977's "gate" donations will tell us a lot about the prospects for this.

A.E.R.O. also hopes to make the NWES--truck,trailer, pickup, and informational displays--more useful throughout the entire year, not only in the summer. There certainly is plenty of year-round demand for parts of the Show to be set up in schools, at trade fairs, and so forth.

Beyond NWES, we at A.E.R.O. are excited about continuing the REACTeam's functions into fall and winter, 1977-78, in the areas of:

(1) networking renewable energy/appropriate technology activities around the state and region;

(2) documenting the NWES with slides, photos, video, and written materials (such as playscripts, information on display panels, devices, and systems);

(3) follow-up seminars in selected communities: local strategies for a renewable energy future;

(4) documentation of Bill 86 grantees' projects (in their advance work, the REACTeam will actually begin this documentation process, and A.E.R.O. believes this may be a worthwhile Bill 86 project at some time in the near future);

(5) preparing for NWES '78;

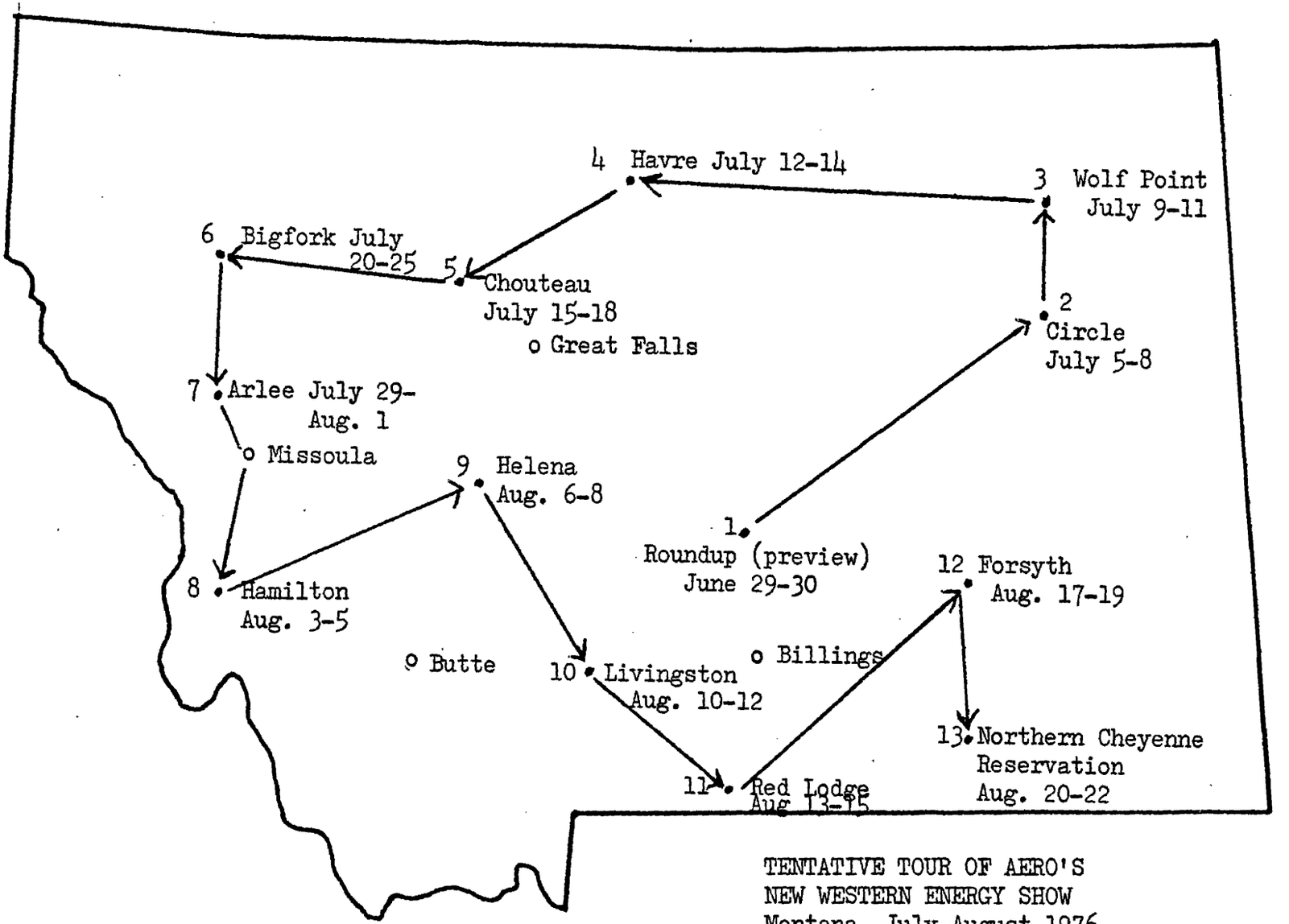
(6) extension of other A.E.R.O. functions such as workshops, lectures, slideshows, video presentations, information and publicity.

The first two items in the above six-item list are partly budgeted for in the present grant application. The last four items are areas of work that are contingent upon future funding for REACT-A.E.R.O.

APPENDIX 5

TENTATIVE TOUR OF AERO'S NEW WESTERN ENERGY SHOW

MONTANA, JULY-AUGUST 1976



TENTATIVE TOUR OF AERO'S
NEW WESTERN ENERGY SHOW
Montana, July-August 1976

APPENDIX 6

SPRINGTOUR SCHEDULE

Appendix 6

Springtour Schedule

April 25	Whittier
26	Porter
27	Meadowhill
28-29	Rattlesnake
May 2	Potomac and Sunset
3-4	Target Range
5-6	Lewis & Clark
7	New Horizons Fair
9-12	Seeley Lake's Camp Paxton (outdoor environmental education camp)
16	De Smet
17	Central
18	Frenchtown
19	Prescott

Springtour Schedule from AERO Sun Times, April/May, 1957, p. 5.

APPENDIX 7

1977 NEW WESTERN ENERGY SHOW PERSONNEL

Appendix 7

1977 NEW WESTERN ENERGY SHOW PERSONNEL

Robin Axberg, Milwaukee, actress

Barbara Balock, Missoula, (actress in Springtour) actress

Bud Barta, Lewiston, technician

Bob Cater, Bear Creek, (Jack-of-all-trades in 1976) handyman

Mary Dower, Missoula, musician

Robin Leenhouts, Milwaukee, (designer and juggler in 1976) co-coordinator

Angie Leprohon, Missoula, (actress and musician in 1976; co-director of Springtour) actress and musician

Ellyn Murphy, Vermont, informational material coordinator

David Nimick, Seattle, co-coordinator, technician, bagpiper

Randy Reinhart, Billings, (technician in 1976) advance person, technician

Bob Richards, Helena, musician and actor

George Ryan, Grass Range, (actor in Springtour) musician and actor

Shaun Taylor, Seattle, actor and children's projects director

Susan Ward, Seattle, (theater director and actress in 1976) theater director

Appendix 7

LIST OF TOWNS AND (tentative) SCHEDULE FOR 1977

July	6-10	Miles City	August	5-7	Hamilton
	13-17	Glasgow		10-14	Missoula
	20-24	Great Falls		17-21	Helena
	27-31	Kalispell		24-28	Livingston
				31-September 4,	Billings

Schedule from AERO Sun-Times, February/March 1977, p. 7.

APPENDIX 8

PROJECTED EXPENSES FOR THE NEW WESTERN ENERGY SHOW FILM

Appendix 8

PROJECTED EXPENSES FOR THE NEW WESTERN ENERGY SHOW FILM

16mm ECO 7252 color film twenty 400' rolls (processing included) @ $62 per roll	$1,240
Equipment rental: camera in Roundup	100
RF unit	10
Six ½hour black & white video-tapes @ $15 each	90
¼ inch recording tape, 8 hours @ $7 per hour reel	56
Editing expenses: Workprint, 5,000' @ .13/ft	650
Sound transfer to 16mm sound film 5 hours @ $20 per hour	100
16mm sound stock, 5,000' @ .03/ft	150
Sound mix, 1 hr @ $50 per hour	50
Optical sound, 2,000' @ .11/ft	220
Answer print, 2,000' @ .23/ft	160
Leader, 5,000' @ .035/ft	175
Internegative, 2,000' @ .35/ft	700
Release print, 2,000' @ .115/ft (2 prints)	160
Two 2,000' reels and cases @ $11 each	22
Tape and supplies	15
Shipping charges	80
Studio recording (2 hours)	70
Salaries: Music coordinator	400
Consultant (narration)	300
Albert Chaney, wages, 6 mo. @ $300 per mo.	1,800
Transportation	150
	7,170
10% over-run	717
	$7,887

APPENDIX 9

ITEMIZED BUDGET OF EXPENSES TO FIRST ANSWER PRINT

ITEMIZED BUDGET OF EXPENSES TO FIRST ANSWER PRINT

Production:

Film		
200' 16mm TV Recording Stock B/W @ $5 per 100' roll	$10.00	
200' B/W Processing @ $6 per 100' roll	12.00	
11,600' ECO		
500' VNF processing included	1,259.00	
35mm Slide Film and development .	15.64	
	1,286.64	
¼ Magnetic Recording Tape	32.18	
Camera Rentals	190.00	
		$1,508.80
Video-tape		
1 20-minute Sony ½" video-tape	$12.50	
5 30-minute Sony ½" video-tape	75.30	
1 60-minute Sony ½" video-tape	31.80	
3 30-minute Sony 3/4 cassette	75.00	
	$190.70	
Radio Frequency Unit Rental	10.00	
		200.70

Editing:

5,270' 16mm B/W Workprint @ .10 ft.	$527.00	
110' Timed color workprint @ .165	18.15	
9,900' 16mm Magnetic Sound Film	220.20	
4 hours of Sound Transfer	115.45	
2,000' black leader @ .045	90.00	
1,000' white leader	25.00	
3,000' purple leader	35.00	
Sound Mix 2½ hours @ $50	125.00	
2030' Ektachrome Answer Print @ .25	507.50	
Editing supplies	67.28	
Editing time (repair splices)	75.00	
	$1,805.58	
Sync Block Rental	44.00	
Showchron Rental	700.00	
		2,549.58
Graphics		34.00

Wages and Service Fees:

A. Chaney (10 months wages)	$3,385.00	
D. Lewis (audio services)	75.00	
W. Wood (narration services)	100.00	
M. Murphy (cinematography services)	206.00	
State withholding	15.00	
		3,781.00

Traveling:		
Portland January and February 1978	$211.37	
Portland per diem (23 days @ $6.50)	149.50	
Montana June-September 1977	115.65	
W. Wood traveling allowance	75.00	
Helena May 1978	16.34	
		$ 567.86
Shipping:		56.63
Telephone:		67.69
Bank Service Charges:		8.07
Miscellaneous:		19.90
TOTAL		$8,794.23

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